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GUNS AND CAVALRY



BRIGADIER-GENERAL FOX STRANGWAYS.

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GENERAL SIR JOHN STRAMOWAY.

GUNS AND CAVALRY

*THEIR PERFORMANCES IN THE PAST
AND THEIR PROSPECTS IN THE FUTURE*

BY

MAJOR E. S. MAY, R.A.

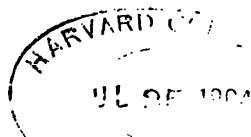
AUTHOR OF "ACHIEVEMENTS OF FIELD ARTILLERY"

WITH PLANS AND ILLUSTRATIONS

BOSTON
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P R E F A C E.

MUCH of what the following pages contain has been said before by me in lectures or articles which I have written within the last few years. It has been suggested to me that they might interest more than the comparatively narrow circle of officers for which they were originally intended, and accordingly I have here thrown my ideas into a more connected and less fugitive form.

To a book which is neither written wholly for professional soldiers, nor yet in a style which appeals to popular taste alone, some few words by way of preface seem demanded. To one class of readers I must often appear to dwell on matters which are already obvious and need no explanation, while I may occasionally weary another with details and considerations which are too technical to be attractive. Yet all

soldiers are not students, and many laborious civilians in their hours of relaxation are very capable soldiers indeed. I take the opportunity, therefore, of offering my apologies to both the parties whose indulgence I may have trespassed upon from opposite directions, and plead as my excuse that it is a difficult task to satisfy everybody.

That some words on the action of guns and cavalry may not, however, just now be superfluous, when the problem of their application is far more complicated than it was before scientific ingenuity had invaded successfully the realm of the gun-constructor, is shown by the interest the subject has within the last year or two aroused above and beyond the special attraction which for certain minds it has always possessed. No branch of the art of war is more difficult; none calls for the exhibition of more soldierlike qualities, physical as well as mental, on the part of a leader, and in none are so many noble chances offered. The story of cavalry and of artillery co-operating with it is a record studded with the names of quick, resolute men, low down in the scale of precedence according to rank or age, who climbed to

fame by such deeds as have ever delighted soldiers. Men vigorous, and energetic in body, and with some touch of that indefinite quality which may most fitly be expressed as military instinct, but which merges or develops imperceptibly into what without inflation of language we may term genius for war. Many of them never rose to high dignities ; many were killed or died when comparatively young : Norman Ramsay was but a brevet major when he fell at Waterloo ; Brandling and Von Woldersdorf were captains when they acutely influenced the fate of a serious combat ; Lasalle was thirty-four when he lost his life at Wagram ; Murat was only four years his senior ; and Kellerman, when he, "inspired by a happy and sudden resolve, threw himself on the Austrian column," and won Marengo for Buonaparte, was no more than thirty. The unexpected, sudden, and fleeting opportunities offered by the circumstances under which cavalry and guns engage, are indeed the very ones in which he who is something more than mediocre and painstaking may win his spurs. It is because of this that there is a greater halo of romance round these arms than any others, and that on them

so much of the admiration and attention of the general public is centred.

I can only hope that the interest of such a subject may atone for and to some extent hide any deficiencies of execution of which I may have been guilty.

E. S. MAY.

HIGHFIELD, WOOLWICH.

March 8th, 1896.

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GUNS AND CAVALRY.



CHAPTER I.

THE MOBILITY OF GUNS.

THE whole question of the efficiency of guns acting with cavalry hinges on the mobility with which they are endowed ; and since the number of animals which can be made to work together to the best advantage and the powers of each individual horse are limited, it will not be unprofitable to devote our opening chapter to a discussion of the value which mobility is to Field Artillery in general. Horse Artillery, the arm usually employed with horsemen, simply differs from ordinary Field Artillery in the fact that its gunners ride, while the others either walk, and retard rapid progress, because they can do so no faster than other foot-soldiers, or sit on the carriages and add burthens to the team, which tell as surely on a march as does the weight-cloth on a racecourse.

When a field battery moves lightly past the General at a review on a level sward with an ease apparently equal to that displayed by one in yellow-laced jackets, people are apt to forget that the extra weight has as yet had no time to tell ; that the guns have been dragged perhaps not a mile from the comfortable stables where the horses have been fed a few hours previously, and whither they will return again in a comparatively brief period to well-filled mangers. Field and Horse batteries both appear to manœuvre with equal elegance and freedom, and as regards mobility there does not seem to be a very vast difference between them even to the generality of officers.

The delusion is perhaps further increased by the fact that in respect to fire effect they really are very much on the same footing.

This is so because the demands of modern tactics and the power of the most recent Horse Artillery guns are such that batteries cannot be allowed to stand idle during a great battle, and therefore our Horse Artillery batteries of to-day, whatever may have been necessary in the past, must be trained and utilised in precisely the same manner as are field batteries ; and they constitute in fact simply mobile Field Artillery. If expense and forage considerations

were of no moment it would indeed be better to have all gunners, both of Horse and Field Artillery,* mounted, and thus ease the horses. Mobility is the most vital characteristic which artillery should possess, and, leaving its use with the cavalry division altogether out of sight for a moment, it is in this respect that Horse Artillery is always valuable.

I need scarcely now enlarge on what is but a well-worn commonplace, that has been illustrated in the last great European wars just as in the old days, when its truth was more generally recognised, but I will remind my readers once more that at Dresden Napoleon had to double the teams which could not draw his guns by taking horses from the commissariat waggons ; that at La Rothiere the artillery of Sacken's Corps could not be got forward, and that one-half had to be left on the ridge of Trannes, while all the horses took on the other half, and came back for the remainder ; that after Montmirail the Russian artillery could only be got off the field by harnessing fifty Hussars with long ropes to each gun ; and that at Vauchamps, when Grouchy got across Blucher's line of retreat with his cuirassiers, all the accounts tell us that

* It has this year been suggested by the Camp Commandant at Okehampton that with a Field battery two gunners should in future be mounted on the off horses of the gun teams.

not a man would have escaped had not the two Horse Artillery batteries which formed part of his division been delayed by the execrable state of the roads too far behind to be of service.

And—to come down to more recent times—in the discussion following a lecture I gave a year ago on Cavalry and Horse Artillery, Lieut.-General Sir William Stirling, K.C.B., gave the following account of his experiences with “C” Troop, R.H.A., during the Crimean war, which I shall myself refer to later on. After a reference to its armament and the events of the 25th of October, 1854, he said:—

“Again, at the Tchernaya, on the 16th of August, 1855, ‘C’ Troop was with the British cavalry and Horse Artillery in reserve. After the fall of Sebastopol on the 8th of September, 1855, a cavalry division of forty squadrons, to which three Horse Artillery batteries were attached, was formed at Eupatoria to the north of Sebastopol to threaten the Russian communication. There was a Turkish Horse Artillery battery with comparatively light pieces and only four horses in the team, I think; there was a French Horse Artillery battery with six horses in the team, armed with the piece that had been an 8-pr. and was now bored up to throw a 12-pr. projectile, and considered to be good up to a mile; and then there was ‘C’ Troop,

R.H.A., with its 9-prs. of 39 and 40 cwt., with eight horses in the team and ten mounted men in the detachments.

“During the five weeks in October and November, 1855, that this force remained at Eupatoria there were three reconnaissances in which the whole cavalry took part, supported by a strong Franco-Turkish infantry division. There were also several smaller reconnaissances made by portions of the forces. The country was quite perfect for cavalry and Horse Artillery to work over, an undulating grassy steppe, but water was scarce and very bad, and the force could not on this account remain out beyond the third day on either occasion.

“The experience gained by ‘C’ Troop, even working over this very favourable ground, and with excellent horses in good condition, was that the weight behind the teams was quite excessive, and that both the extra pair of horses in the team and the great weight of the equipment would effectually bar co-operation with cavalry under normal circumstances.

“Gentlemen, we do not want guns that can just be rolled up into position and there stand and blaze away at long ranges ; we want to come to short ranges and to be able to keep up with the cavalry ;

and I think, Sir,* that the whole question of the co-operation of guns with cavalry turns upon the weight that we put behind the teams."

Yet fourteen years ago in spite of these experiences, and of a hundred similar ones, our Horse Artillery batteries were again found deficient in mobility on active service, and we would do well, in this age of science and theory, to bear in mind that mobility is the first essential to artillery, that we do not make war on grassy lawns, or only in summer weather, that horses lose their strength when underfed and over-worked.

Why the lessons of campaigning, and such facts as I have just quoted, should have been forgotten, I know not, unless it be that we live not only in an age much given to study and theory, but distinguished for inventive genius also. Every impulse which science imparts to manufacture improves the material means of destruction, and as firearms become more perfect, there is a tendency for men to dwell rather on what may be done with them when soldiers are actually shooting on one another, than on the manœuvres which bring about their judicious application.

Musketry and gunnery being exact sciences, are, therefore, to the majority of thoughtful minds more

* General Sir Evelyn Wood, V.C., G.C.B., G.C.M.G., was in the chair.

attractive than tactics, and there is sometimes a coldness where there should be sympathy between two schools of thought. The effect of fire can be measured on a target, while that of a charge or rapid march requires actual hostilities to give illustration of its value. We have target practice with us every day, but war experiences come but at wide intervals of time, or to some perhaps never, and so we lack object lessons to guide us in one direction, and that too a most important one.

It is a curious thing, however, that as cavalry, the most mobile arm, lost in importance as musketry advanced, and even sacrificed its dash to the improved art of shooting, it was in mobility that artillery made way under the new conditions. The matter came about in this way.

Seeing the vast benefit which infantry derived from the growing power of firearms, cavalry men in the seventeenth and eighteenth centuries were tempted to discard the tactics on which they had hitherto relied, and which were their special characteristic, and sought aid also from powder and ball. Thus it was that the greatest of German soldiers found his regiments when he came to the throne halting to fire a volley ere they delivered their charge, and it required all the strength of character of a man exceptionally strong-

willed to stamp the heresy out. But although Frederick appreciated, as every military genius has done before his time and since, the fact that mobility is essential to success in war, he found he could not dispense with fire effect even with his cavalry, and thus, curiously enough, it was that guns in Europe, in order to supplement the efforts of the horseman, became endowed as it were with a new life, and they were no longer content to be classified as "train," and to plod wearily along with the heavy baggage driven by waggoners on foot.

From the new powers of movement that were now given them a whole series of results, each foreshadowing some modern development of their tactics, was produced. Guns that could move could be combined together, could be brought rapidly forward to deal a decisive blow, or could be carried from one part of the field of battle to another. It was activity in fact, rather than improved shooting powers, which first raised artillery from the position it once occupied as a mere appendage to the infantry, into the status and position of an arm capable (although it is not intended to and does not desire to use its powers) of independent action.

Thus it was that artillery officers, remembering, perhaps, how much their arm had been indebted to



HORSE ARTILLERY IN MOVEMENT.



mobility in the past, came twenty years ago to over-estimate its importance, or rather to underrate that of fire. Then the inevitable reaction set in. We were taught that the whole duty of artillery was to hit, hit, hit. And not long ago we have been reminded very forcibly that we must concentrate, concentrate, concentrate. Till we have practical demonstration of the effect of modern shrapnel, I feel diffident in making any assertions, but I will nevertheless venture to add a corollary to both these postulates, to the effect that guns must be able to move freely also, otherwise they may find themselves in a position from which, perhaps, their hitting, if they survive long enough to find the range, may be of little avail, and their concentration will be that of an unwieldy mass.

Accuracy without concentration is, in fact, of no value: concentration of fire means combination of batteries, and combination demands mobility. In other words, tactical considerations must form the foundations for technical excellence.

Napoleon, who destroyed his earlier opponents chiefly by the rapidity of his movements, in his later campaigns relied much on his artillery. He valued fire effect so greatly that some of his maxims in war might almost appear to be the utterances of an enthusiastic musketry or gunnery instructor of our

own times. "Fire effect is everything, all the rest is nothing." "Victory will be his who understands how to bring a great mass of guns into action unexpectedly." Are not these but paraphrases of the very precepts we hear round us in the mouths of many to-day?

A combination of mobility and of fire effect might be looked for from artillery at the commencement of the century. The most essential characteristics of Napoleon's tactics were, therefore, to be found united in one arm, and, if we study what was his greatest artillery battle, we shall find a splendid illustration of how he turned to account the arm in which he himself received his first education as a soldier, and all the powers of which he had done so much to develop. Nor need we hesitate to discuss the action of batteries armed with weapons which are contemptible in the eyes of the gunners of to-day. While human nature exists the same fundamental principles must govern the course of all battles. What occurred at Wagram or Bautzen may very likely happen in the "next great war." Indeed, there was a battle fought in 1870 some incidents of which bear, it seems to me, in certain respects so close an analogy to the great struggle on the Marchfeld, that I propose to deal with these two actions together in a later chapter, and to let two

engagements, separated by a gap of sixty years, measured by progress of time, and by whole centuries as regards progress of science, stand together to corroborate one another, and bear witness to the necessity for an adequate mobility on the part of batteries. And in the phrase mobility I would include not only those qualifications which enable the guns and horses to travel fast, but the personal attributes of the commander who sets them in motion.

Before, however, I go further into this portion of the subject, it is right that I should remind you that war does not mean a rapid succession of engagements. "Victory," as Frederick said, "lies in the legs," and there are many more days of marching than of fighting during a campaign.

Before ever a foe is seen quickness of movement in getting over long distances will be urgently required.

Rapid marches will have to be undertaken, not only for a mile or two, but for distances that it will take hours, or even days, to traverse. No doubt such great demands on the mobility of artillery can to some extent be avoided by assigning to it a very forward place on the line of march, and good arrangements here may render the necessity for a great strain of the powers of men and horses a matter no longer of very frequent occurrence.

But however many text-book examples of the correct order of march for a division or a corps be studied, such expedients will after all only partially meet the case. When one considers the great length of road that must be taken up by an Army Corps on the line of march, it will be seen that, even with the best arrangements compatible with prudence, and even supposing no unforeseen mistakes or mishaps to occur, the Corps Artillery must still be several miles behind the head of the advanced guard, and must move up at a trot over those miles if it is to be in position within a reasonable time after it is sent for. An hour or two might be considered a reasonable time enough; but an hour, now that the intensity of musketry fire has become so much increased, will be a long time in the life of a battle. It will at any rate be extremely difficult to make up for what want of sufficient artillery for even an hour's time may bring about. An impression will be made more quickly than in former days, while the value of a first success or a good beginning will be as important as ever. Here, therefore, we shall still require as much mobility as before, and we should be all the better off for a higher standard still.

Nor can artillery with a due regard to safety be placed in a more forward position on the line of

march than that already assigned to it by our regulations, nor will it be possible for forces in bivouac to bring their artillery masses nearer to the enemy than has hitherto been the custom, for as Prince Kraft has told us, in bivouacs, especially at night, artillery is defenceless and must be left in rear.

Whichever way we look at it we must be forced to the conclusion that long marches at a trot will have to be undertaken on certain occasions in any future campaign, and the experience of actual warfare will only bring the fact more clearly before us.

It scarcely seems necessary in the light of all that has been written on the subject, to bring forward examples to prove what will sound to students a truism. I have already referred to the experiences of the smoothbore days, but let not anyone imagine that they are belied by those of a more scientific period. Far from it. But facts apparently obvious are often lost sight of in practice, and it will do no one any harm to be reminded that the Corps Artillery of the German Guard marched nine miles on the road from Carignan to Villiers-Cernay at a gentle trot in one spell on that 1st of September which gave so great a triumph to the artillery of the victors. That long-continued trot helped to render complete the great girdle of batteries which encircled the French several

hours earlier than would otherwise have been the case, and the time gained was valuable in allowing a methodical reconnaissance, the selection of a good position, and that calmness in the occupying of it which goes far to promote an effective fire.

Neither let us forget Von Dresky with the Corps Artillery of the 3rd Corps at Spicheren. He had marched his batteries thirteen miles up and down hill in the early part of the day on that 6th of August, and, imagining his day's work was over, had settled down in his bivouac at Ottweiler for the night, when he was called upon at 3 o'clock to hurry to Saarbruck. In half-an-hour his horses were hooked in and he was on the road with fifteen miles of an undulating country in front of him. Those batteries had to hurry along so fast that they grudged even the time necessary to put on a drag-shoe. At 6.30 o'clock the Horse Artillery were on the battle-field, and were able to assist their friends. The effort was, however, somewhat beyond the powers of the Field Batteries, and when these appeared, at 8 o'clock, they were too late to be of service.

The performances of these same batteries during the campaign of 1870, led by the gallant Von Dresky, might, indeed, serve to illustrate almost all the varied phases of artillery tactics ; now, however, that we are

dealing with mobility alone, I will only touch on one more of their achievements, that, namely, when at Beaune-la-Rolande, on the 28th November, they were ordered up to the assistance of the 10th Corps engaged on the north-east of Beaune.

Again, the superior mobility of the Horse Artillery enabled them to be on the scene of action when required, and they were able to render opportune aid, having accomplished a march of $31\frac{1}{2}$ miles successfully ; but, on the other hand, the Field Batteries, who could not get along so fast, failed as before to furnish timely assistance.

But it is not only for long and rapid marches such as these that mobility will always be essential to artillery. On the field of battle itself occasions will still occur when prompt assistance and support can alone be rendered by very rapid movement, and when, if batteries are to cordially co-operate and work with the other arms, they must be prepared to quickly respond to the call of their companions.

The inter-dependence of the three arms cannot be too often insisted upon.

Artillery cannot cope single-handed with the enemy's skirmishers when established within effective rifle range of the guns, or, at any rate, can do so but with difficulty. For help in such situations it

must look to an adequate force of riflemen on its own side, so posted as to prevent the creeping sharpshooter from attaining a dangerous proximity to it. All this is now universally recognised and understood. On the other hand, after the preparatory artillery action is over, and the infantry has moved forward, the artillery must also be ready to conform to its movements and advance, if necessary, more or less with it. We must now be prepared for more than long hours of collar work, since such an advance will often have to be very rapid and cannot always be confined to roads or paths. Rough or highly cultivated ground may have to be crossed, and the detachments, in the case of Field Batteries, will almost always have to be mounted on the carriages. Again, the configuration of the ground will very seldom allow of guns remaining in action behind advancing infantry, nor, in spite of much that has lately been said to the contrary, do I believe that such tactics would be desirable, if its safety and staunchness are not to be compromised. For men have a nervous dread of shells flying over their heads from behind.

The guns, therefore, will have to keep pace with the tide of advance. But besides this general, and more or less deliberate, forward movement, occasions and opportunities may arise in future warfare as they

have in the past, when artillery must be prepared to make short desperate rushes, and, forgetting alike its vulnerability and its long range, stand shoulder to shoulder with its brethren of the infantry. The war of 1870 shows us many such instances, and nothing in it was more conspicuous than the devotion with which the German Artillery again and again moved up right into the thick of musketry fire when urgent necessity existed for the sacrifice almost always involved. However perfect a weapon the modern rifle may become, if both sides are equally, or almost equally, well armed, the attack will inevitably be brought to a standstill at certain points as before, and then without the intervention of some new power it may be found impossible to push forward. There are also critical moments during all engagements at which not to be able to press on is tantamount to a repulse, when a check to an hitherto almost continuous advance may alter the whole aspect of affairs, or even herald the advent of defeat.

On such occasions it will be always necessary to bring artillery rapidly into action at decisive points to give support and confidence to a wavering infantry, or shake a stubborn foe. I need hardly remind my readers that it will also be necessary after a successful attack by the other arms to send artillery forward to

secure the ground gained, to destroy obstacles to further progress, or harass the flying enemy.

And in the event of a disaster artillery must be no less alert to cover the retreat. It must, in fact, never forget that its chief value is as an auxiliary, and that it is with the infantry that it must stand or fall. Thus, on the 6th of August, 1870, at that same battle of Spicheren, we find Colonel von Rex, commanding the 32nd Brigade, particularly begging for the support of artillery to give more decisive effect to the successes already gained on the Spicheren plateau by the infantry, who, half exhausted, were with difficulty clinging to the ground they had captured. In response to his cry for aid, General von Bülow ordered up the 3rd Light and 3rd Heavy Batteries of the 9th Brigade to the heights. The road by which these batteries endeavoured to advance was at all times a difficult one, but now ploughed up as it was by shells, and narrowed by some cavalry who had preceded them and halted there, had become almost impassable.

The leading gun of the Light Battery was alone able at first to reach the heights, and its anxiously waited for appearance was greeted, we are told, by a loud cheer from the well-nigh exhausted infantry. Soon after the rest of the Light Battery was got up, but only one division of the Heavy Battery was able

to gain the spot they strove for. Although these eight guns lost nearly half their gunners, fighting as they were within 800 paces of a line of French skirmishers in shelter trenches, the effect of their shells compelled the enemy by degrees to abandon the field, and the remaining four guns of the Heavy Battery were able to come into action also.

The timely advance of these guns and the glorious struggle maintained by them had a most decisive effect, and had it not been for their opportune appearance the Rotherberg might have been lost to the Prussians. Few better examples of how lightness and activity may serve us at a pinch could, I think, be quoted. The Light Battery, it will have been noticed, was able to ascend a height at a critical moment which was impracticable to the heavier guns, and which it was of vital importance to occupy quickly with artillery.

Not only, however, was the great necessity of mobility conspicuously displayed here, but the disadvantage of a field piece with much recoil in certain situations was also exemplified. We are told that the configuration of the ground, sloping as it did to the rear, brought about such an amount of recoil in the heavy guns as to interfere very seriously with their service. This fact, though only casually mentioned,

is not without a certain bearing on the subject, and I feel I need not apologise for alluding to it here.

To return to some incidents in the war of 1870.

At the battle of Vionville—Mars-la-Tour, when the Prussian infantry had to evacuate the Tronville corpses between three and five o'clock, its retreat was covered with much bravery by the guns, which had a very difficult *rôle* to play, till they were reinforced at a critical moment by the 3rd Horse Artillery Battery of the 10th Corps, temporarily withdrawn from another position, and sent round the south of Vionville at a gallop to support the other guns * already in action.

From the battle of Gravelotte incidents of the same description might be freely culled. The splendid recklessness or devotion, call it what you will, which sent Hasse's and Gnügge's batteries across the ravine opposite the French left, the gallant advance of Von Prittwitz and the 3rd Light Battery of the Guard Corps Artillery have furnished a theme for many a sympathetic writer. We need not multiply examples of this kind, and moreover they savour somewhat of a "rough and tumble" kind of tactics, and of magnificent courage, and soldier-like qualities, falsely utilised by deficient leadership.

* The batteries of the 6th Infantry Division.

It may possibly be that the same scenes may once more be re-enacted in the future, for the very precision and intensity of modern musketry may, one is almost tempted to say must, bring about a deadlock between the two lines of opposing riflemen. On such occasions the cry for artillery has invariably gone up in the past from infantry. He will be somewhat bold who will deny the possibility of its being heard again, and, if it is, then, without the intervention of guns willing and able to move, infantry will be prevented from making progress.

CHAPTER II.

THE ACTION OF GUNS AND CAVALRY TOGETHER.

HAVING thus discussed the value or rather necessity which mobility is to Field Artillery, we may turn to show what an Artillery endowed with due mobility may become to Cavalry.

As I have said already, even during the 17th century firearms were the rage of the day, and the Cavalry soldiers of those days were carried away by the new fetish to the detriment of their efficiency. Tilly formed his squadrons in ten ranks, Wallenstein in eight, while they moved but slowly, and confided much in their firearms. Even Gustavus Adolphus, whose genius placed him far in front of his age in many respects, and who was the first to introduce into modern Europe the true principles of Cavalry tactics, could do with no less than three, and even he did not aspire to dispense altogether with a volley. His men were taught to ride boldly up to the enemy's line, when the front rank were to fire a single volley with their pistols, ere they drew their swords. Then they

dashed in amongst their opponents, while the ranks behind them usually reserved their fire, to be used when the enemy's line was broken.



OLIVER CROMWELL.

The Ironsides, too, of Cromwell, whom I regard as the best cavalry leader these islands have ever produced, could not shake off entirely the evil fashion of the day, but when they engaged an enemy were

usually drawn up five deep. The front rank fired its two pistols and filed away to the rear to reload, then the second rank did likewise, and similarly in due course the third rank replaced it. When the word was given to charge the men steadied themselves ere they delivered their onset, fired their pistols, and then fell to with their swords, supplementing their rush, it is said, by flinging their empty firearms in the faces of their opponents! I believe Cromwell latterly understood more fully the true application of cavalry,* and discountenanced firing previous to a charge; but certainly the usual tendency of cavalry tactics during the seventeenth century was a false one.

Such indeed was the prestige then attaching to powder and ball, that, though few can have fallen by them under such conditions, the whole spirit and dash of horsemen were sacrificed in their favour.

Prince Rupert, however, whose name has become a synonym for fiery valour, appreciated the mischief of the tendency, and may be credited with at any rate an endeavour to make cavalry rely only on inertia and swift movement in their first onset. According to Bulstrode Whitlock's *Memoirs*, quoted in Gardiner's "*History of the Civil War*," † the following instructions

* *Vide* Major Baldock's interesting articles which have lately appeared in the "*United Service Magazine*."

† Vol. ii. p. 146.

were issued before the battle of Edge Hill. He says : "Just before we began our march Prince Rupert passed from one wing to the other, giving positive orders to the Horse to march as close as possible, keeping their ranks with sword in hand, to receive the enemy's shot, without firing either carbine or pistol until we broke in among the enemy, and then to make use of our firearms as need should require, which was punctually observed."

At the battle of Auldearn, fought on the 9th of May, 1645, we read that "Lord Gordon" (who commanded Montrose's horse) "by this time charges the left wing, and that with a new form of fight, for he discharges all shooting of pistols, and carbines, only with their swords to charge quite through their enemies." * Montrose had probably profited by Cromwell's example, but the generality of cavalry soldiers did not.

Indeed, it is astounding how even up to our own times the same fond desire to avail themselves of fire has often distinguished Cavalry. A few examples occur at once to the mind.

The French Cavalry, perhaps the best of that period, halted to receive our charge with pistol fire at the affair of Aroya-Molinos in 1811.†

* Gardiner's "History of the Civil War," vol. ii. p. 226.

† October 28th, *vide* "The History of the King's German Legion," vol. ii. p. 23.

In 1854* the massive Russian squadrons did exactly the same thing when Scarlett's resolute squadrons faced them and advanced to ride on what seemed certain destruction.

The Austrian horsemen, thirty years ago, were regarded by competent judges as perhaps the most admirable in the whole of Europe, and yet a study of the campaign of 1866 will show them more than once exhibiting the same fatal error at a critical moment,† while there is another example even more astonishing still.

We all know how splendidly the French cavalry fought on occasions in 1870, and what devotion and courage they displayed when assailing infantry in particular, yet had they so little of the true cavalry spirit, that, when that gallant and celebrated charge was delivered by Margueritte's division on the Illy plateau at Sedan it was preceded by volleys of carbine fire. So much was this the case—so much smoke and explosion of firearms was there—that an eye-witness has told us that the German 5th Corps at first supposed that they had infantry in front of them.‡

* At Balaclava.

† *Vide* Official Account of the War of 1866, pp. 95 and 344.

‡ I found this statement in a series of "Lectures on the Three Arms," by Baron Seddeler of the Russian General Staff, published in the "Militär-Wochenblatt" in the year 1873.

British cavalry have never been prone to such a fault—if they have erred at all, they have done so on the side of a too headlong valour; but, nevertheless, these chance examples remind us once more of the need which cavalry feels for the support of fire, and of the truth of Napoleon's dictum, "Cavalry has more need of artillery than infantry, because it cannot reply to fire, but can fight only with the steel." And, I repeat, that it was this keenly felt necessity which gave birth to Horse Artillery as a special arm, and linked guns and cavalry together as part and parcel of the same unit on the battle-field.

For when Frederick the Great set himself to perfect his army, and turn it into the magnificent fighting machine it ultimately became, one of the first reforms he had to introduce was with reference to the employment of his cavalry. Fire worship was still the religion of cavalry soldiers, and he found his squadrons still following the fashion of the previous century, and waiting to receive an attack in position, and then, having poured in a volley, charging to take advantage of its effect. All the dash and enterprise which should distinguish the most mobile arm were therefore gone, and the dragoon, or even the cuirassier, had become a bad trooper and a worse musqueteer.

The genius of the Soldier King saw that such tactics took away all the characteristics that made cavalry valuable, and he set himself to work energetically



FREDERICK THE GREAT.

to destroy the hideous error that was sapping the efficiency of his regiments.

I may here make a digression for a moment to

remind my readers that we see an example in our own times of history repeating itself, in the manner in which the fire action of cavalry has been accentuated in the Russian army, where they have armed the dragoons once more with rifle and bayonet, and that this new departure is regarded by many with the same dislike as it was by the Prussian King.

His measures to improve matters were somewhat more decisive than we are used to nowadays. There is no uncertain sound about the order he issued to his squadrons, "Nimmer zu halten, nimmer zu stocken, aber immer stets zu attackiren," that is to say, they were *always* to attack, and, further, he declared that any officer who waited in the old way to receive the enemy should be tried by Court-martial.

His cavalry, trained and splendidly led by Seydlitz and Ziethen, two of the most capable cavalry leaders that ever lived, were soon renowned for the precision and rapidity of their swoop, and have probably never been surpassed.

But having developed the "shock" powers of his cavalry at the expense of its fire effect, he had to make the latter good in some other way.

Cavalry is essentially an offensive arm: it cannot defend itself except by counter attack, and in certain situations it is at the mercy of a few well-placed

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marksmen. Batteries of artillery lightly equipped, and with their detachments mounted like troopers, were therefore organised by Frederick to move and act with cavalry, and supply it with the powers he had shorn it of. He is said to have taken the greatest possible interest in the new arm and to have superintended its drill and instruction himself. So valuable was the new acquisition found to be that the number of Horse Artillery in the Prussian service had risen to twenty in 1806, and the co-operation of the two arms was, and has since been, found to work out in another way, to the benefit of both, because, while guns loosened compact formations for the horsemen, the cavalry forced the scattered troopers to draw together, and thus present an easier target to the guns.

Of Seydlitz it is impossible to speak without enthusiasm. His regiment was said to be a model to the whole universe, and he combined prudence, energy, and boldness to an extraordinary degree. As a boy he was noted for his mad pranks. At seven years old he was sufficiently master of the animal he bestrode to gallop between the sails of a windmill in full action. At twenty-three he was a Major, in nine years more a Colonel-Commandant of a cuirassier regiment, and three years later became a Lieutenant-General, and Commander-in-Chief of the Prussian cavalry. Ross-

bach was perhaps his finest battle, and there artillery materially aided his attack, although it has not always received credit for it.

Ziethen was another born cavalry soldier, and equally combined wisdom with courage. He is said to have "conceived his plans with the progressiveness of the rising storm, and executed them with the rapidity of the thunderbolt." The famous Ziethen or "Death's Head" Hussars were commanded by him, and a world-wide reputation still clings round his old regiment. *Coup d'œil* was his special gift, and the secret of his success, and he once told his Royal Master that he no sooner saw his enemy than his dispositions were already made.

It is with these two memorable names that the extraordinary successes of Frederick's cavalry will always be identified.

Napoleon, who appreciated the value of fire more than any man of his time, and also reaped immense results from a skilful use of cavalry, recognised the value of a mobile artillery too, and attached guns to his regiments to work with and support them. Under his great example its use became general, and galloper guns, as they were at first termed, attained a recognised status both in Europe and in India.

Napoleon, too, more than any other general before

or since, taught his cavalry to act with boldness in reconnaissance work ahead of his armies, and it was by means of the information as to his enemy's plans and position, which an abundant and energetic cavalry placed at his disposal, that many of his most celebrated strokes were rendered possible. Thus, during his advance to Russia in 1812, Murat, with the advanced cavalry, was often fifty miles ahead of his army. So it was that not only did cavalry in his day come into collision with the enemy on the field of battle to an extent such as we shall perhaps never see again, but cavalry raids and combats took place ere the main forces came in contact at all. A powerful cavalry meant a vigorous pursuit. Other nations, to meet his horsemen, had to adopt similar tactics, and thus great opportunities for the action of cavalry and its complement, Horse Artillery, were given in the long wars that marked the end of the last and the commencement of the present century. And by no batteries were opportunities more worthily turned to account, let me add, than by our own brilliant troops in India, in the Peninsula, and in Belgium a few years later.

During the long period of peace—the lull after the storm—however that succeeded Waterloo, many of the lessons of the great battle-fields were forgotten; and when in 1870 the Prussians sent the ubiquitous

Uhlans roaming through France, men stared in amazement as though a new epoch in the art of war had opened. Yet they were doing but that which Napoleon had shown to be essential to the safety of an army seventy years before, and did not do it either nearly so well as he had done.

But the French had not profited by the study of military history as their opponents had, and their squadrons, brave and eager as they proved themselves more than once in the actual fight, were held aimlessly in hand, tied to the same road on which moved the other troops. No cavalry was sent scouting far away in front or on the flanks, and even in retreat they rarely or never attempted to prevent the inquisitive inroads of the pursuers. It takes two, we all know, to make a quarrel, and a cavalry combat is no exception to the general rule. There were few in 1870 because the German troopers had it, to use a familiar expression, "all their own way." Consequently, the horse artillery and cavalry had no need to support one another, and there were in 1870 only a few examples of their co-operation in the most important *rôle* they can be called upon to adopt.

Such, briefly, is the explanation, and it applies also largely to 1866, of the fact that we find richer ground for research if we retrace our steps to the earlier

periods. And it is very necessary that we should understand this, because it is as certain as anything in this world can be that, if we have another great war on the Continent in the near future, we shall again see the two arms we are dealing with working together, to an extent and upon a scale which even Napoleon never dreamt of. All nations have studied and profited by the lessons of 1870, and on all sides we see signs that tell us that vast swarms of cavalry will shroud and protect the advance of modern armies. When both sides adopt these same tactics, their cavalry will surely come into collision, and we shall see squadrons supported by horse artillery taking part in contests which will materially affect the progress of subsequent events.

In 1870, when the cavalry divisions of the Germans were thrust forward alone, horse artillery always accompanied them, although when the battle took place we find them employed apart from the horsemen in the general line of battle ; for guns, be they horse or field, must never be allowed to stand by idle when their fire may be utilised.

But, besides being essential to one another in this most important work, cavalry and horse artillery will find opportunity and need to work harmoniously together in other emergencies.

These arms will form part of the immediate advanced guard of every considerable force, will have to reconnoitre the enemy's strength and position, delay his onset, or check his retreat, until the main body arrives.

They will also, perhaps, find their most useful and most honourable *rôle* in covering a retreat of their own side, and it is to their skill, readiness, and, if need be, self-sacrifice, that their comrades look for salvation in the most trying circumstances in which soldiers can be placed.

Horse artillery and cavalry may also be employed on the field of battle itself to make a flanking movement, or, by their mobility, forestall the enemy at some important point.

And finally, they may act together with advantage in the pursuit of a beaten foe.

But although we may have opportunities as great or greater than those of Napoleon, our difficulties may also be greater too. In the old days of round shot and case a good Horse Artillery range was four hundred yards. Two hundred was even a better. The Horse Artillery guns were comparatively useless unless they galloped right into the fight, and their whole energies were concentrated on getting to close quarters as soon as possible. Even on the battle-field

itself they might gallop up to within a few hundred yards of a mass of infantry, unlimber and come into action without excessive loss, and then a pitiless storm of case was often more than a match for the musketry fire which clumsy flint-locks could bring to bear.

But now the weapon of a Horse Artillery battery can hit pretty hard at 3000 yards, and therefore nowadays we are especially tempted to try and combine and fuse together two great principles of tactics which are more or less antagonistic the one to the other. We endeavour to make what for the time being is one unit act by both fire and shock at the same moment, yet can never thus hope to reap the fullest effects from both such methods of application.

Nay more, we desire at one phase of the action to see men forgetful of the advantages with which modern science has endowed them, and fight as in the days of flint-locks, and at another earlier stage we may require them to utilise almost to the utmost all the powers of the scientific weapons with which they are equipped.

And our difficulties are further complicated by the fact that in the decisive combat the potency of one part of our unit, although undoubtedly it has made much progress especially in mobility, has not altered very materially during the last hundred-and-twenty

years, while that of the other portion has grown out of all recognition.

The lance and sword! what are they but the weapons of chivalry? the arms of Cœur de Lion



ZIETHEN.

and of Saladin, and yet are they not those on which a cavalry soldier still relies when he flings down the gauntlet to his foe?

They are no more deadly now than they ever were, nor are the men who wield them presumably more

powerful or skilful in handling them than were those that Seydlitz or Ziethen led.

It is a very different matter, however, where fire-arms are concerned. Here magazine rifles have replaced flint-locks, ranges have increased tenfold, while rapidity and accuracy of fire have equally advanced.

If Byng's or Maitland's Guards—the men who fought at Waterloo—could be called upon to face the battalions which are their successors to-day in London, we know to a certainty that a mere massacre would ensue. If Ross's* troop of 1815, that one which gained undying fame during the Peninsular war, were to engage its successor, "the Chestnut troop" of our own times, we have no doubt that it would be swept away before it could get near enough to put in a round at all. We could prove all this to demonstration, but here certainty ends ; and, although our squadrons give unmistakable evidence of the attention which has been bestowed upon them of late, and, although many of us believe, or at any rate I

* Field Marshal Sir Hew D. Ross, G.C.B., K.T.S., etc., etc., who is here referred to, was one of the most distinguished officers which the Artillery has produced. He commanded the present A battery Royal Horse Artillery, then A troop, during the Peninsular war and at Waterloo, and was dangerously wounded at the siege of Badajoz. He was the first artilleryman who was made a Field Marshal, and died as Lt.-Governor of Chelsea Hospital in 1868, aged ninety.

believe, that our cavalry are now, regiment for regiment, at least as good as any in Europe, I cannot help thinking that if the Union Brigade, composed



FIELD MARSHAL SIR HEW D. ROSS, G.C.B.

of the Scots Greys, the Royals, and the Inniskillings, which swept down on D'Erlon's Corps on a certain 18th of June eighty years ago, had to charge the three

magnificent regiments which we see in England at the present time, the result would be by no means the same foregone conclusion as in the other cases which I have cited.

Indeed, I may go further, and say that I myself often doubt (and I know I am supported by opinion in Germany) whether the highly trained squadrons of Seydlitz, "jammed," as he loved to see them "boot to boot," would not be, as regards a charge at any rate, a fair match for any cavalry which modern Europe can show.

The principles which govern shock tactics have in fact not altered since before the days of gunpowder, and yet in close alliance with them we have to utilise weapons which would astonish such comparatively modern Generals as Lord Raglan or Lee.

But if artillery is indeed to be the right arm, as it has been termed, of cavalry, it must be trained weekly or even daily with it, and the two should, if possible, learn to understand one another, not from the perfunctory study of one another's text-books, but from that personal familiarity which is acquired to some extent at field days, but is fostered and developed in a far larger degree, by life together in camp and barracks. And I dwell particularly on this point because, owing to the changes in the armament of

artillery which I have alluded to, there is an especial danger that Horse Artillery may nowadays receive a one-sided education only.

Yet, so far as we can read the future, it seems probable that harder and more varied work than ever will be asked for from Horse Artillery. Because, as I have said, it has at the present day to fulfil two rôles: one as Horse Artillery with the cavalry, sometimes acting quite independently, and the other a more frequent one, perhaps, when it takes its place with the rest of the Field Artillery in line of battle, what in fact for want of a better term we may call its rôle as "Corps Artillery."

With the advanced cavalry, when merely feeling for the enemy, it will not usually have to engage in decisive actions, since its duty will be to furnish just enough force to rend the hostile veil. It can utilise its range often here, for a shrapnel shell will often tell you more of an enemy than can the best of patrols or scouts, yet it will, nevertheless, have to do a lot of hard work in moving rapidly over long distances. On certain occasions severe fighting too may fall to its share even with the advanced cavalry, for it may be sent to seize some important strategic point, as after Tel-el-Kebir in 1882, or as when the 5th German Cavalry division (Rheinhaben's) went

ahead to seize the passage across the Moselle in 1870; to make a raid on the line of hostile communications, as when the Horse Artillery and Cavalry of the 1st army—Prince Frederick Charles's—dashed on and cut the line of rail at Lundenberg;* or to fasten on and hold fast an enemy endeavouring to escape, as at Vionville. Such deeds as these may have to be accomplished before the opposing bodies of infantry and Field Artillery see one another at all, and, when a pitched battle is joined, the labours of the Cavalry and Horse Artillery will be by no means lessened. For these two must work together then with the other arms, and must watch eagerly for every chance which may enable them to operate for the common good. And while awaiting an opportunity the Horse Artillery, be it remembered, will probably take the same share in the action as do the other guns.

In many of these *rôles* which I have specified the tactics are almost a matter of common sense, and depend altogether on the exigencies of the moment.

During a pursuit we need scarcely urge Horse Artillery men or Cavalry to hurry on and hammer pitilessly the retreating foe, still less need we adjure the former to stand to their guns and sacrifice them-

* July 15th, 1866.

selves stubbornly when covering the retreat of a shattered army, or when defending some detached post or defile on the impregnability of which depends the safety of their brethren of the other arms.

There are only two main *rôles* after all which we need discuss closely here: one when Cavalry and Horse Artillery are called upon to throw their weight suddenly into the scale at some crisis in a pitched battle, and the other when a cavalry brigade or division, for the time being independent, engages a similar hostile body in a decisive combat.

The latter is the kind of fight that will most fascinate cavalry soldiers, and there is certainly more room in it for the display of those peculiar qualities with which a leader of Horse should be endowed; but the opportunities afforded on the battle-field itself, come, perhaps, more frequently, and it is in them that cavalry and guns may show themselves especially useful. We will all willingly do homage to the chivalrous impatience which urges a fiery Hotspur to single out and attack his natural foe irrespective of surrounding circumstances, but we will esteem him more if he intervenes only when the interests of the rest of the army call forth his skill or courage.

And I may preface my brief remarks on this point by explaining that, according to the latest regulations,

a cavalry division would, in our Service, usually be composed of two brigades, or six regiments of cavalry, two sections of cavalry with four machine-guns, two or, as some think, better still, three batteries of Horse Artillery, and a battalion of mounted infantry, to which likewise two machine-guns would be attached. In both France and Germany I understand that lately opinion has been rather more in favour of two than three batteries with a division of six regiments, and one authority has expressed a preference for three 4-gun batteries over two of 6-guns. With that view I entirely dissent, and regard a 4-gun battery as a distinctly feeble unit in regard to fire effect.

I need not here distract the attention of my non-professional readers by entering into the question of how these latter-day adjuncts to the cavalry division are to be employed. The Germans carried infantry in carts on more than one occasion during the war of 1870, and our Mounted Infantry may show themselves useful in advance of the main body under certain circumstances again ; the question, until we have some experiences of recent war to go upon, must, however, be a theoretical, perhaps a controversial, one ; but, since the question of an escort to guns has ever been a difficult one, the new additions in this respect probably prove a welcome assistance and support.

Such being the means in hand, let us consider how best they may be turned to account, how most profitably utilised in a purely artillery and cavalry combat.

But before I go any further into this the most difficult and important portion of the subject, I want to put it to you with all the cogency I can command, that now Horse Artillery and Cavalry leaders alike must forget some of the lessons they have acquired when studying the Corps Artillery side of Horse Artillery training. There is no time now for deliberation, every shot must tell; the artillery leader will often have to act on his own responsibility; there must be the most complete and thorough understanding between the two arms. Owing to the natural wish to get the most out of their armament, I believe we have trained our Horse Artillery batteries too much lately with a view only to the Corps Artillery side of their usefulness. On the other hand, they have done so well at Okehampton that cavalry soldiers are fascinated by the accounts of their destructive powers at comparatively long ranges. I venture to think that matters want clearing up a little; and, therefore, before I say any more I will be bold enough to lay down one or two propositions which I regard as vital:

When guns and cavalry are engaging one another in decisive combats—

- (a) Ranges should be decisive. That is to say, of not more than 1500 yards, if possible, and on an emergency considerably less.
- (b) Speaking generally, but recognising the principle that the arm at the moment most dangerous is the one to attack, the objective of both cavalry and guns is the hostile cavalry.
- (c) Changes of position are to be avoided, and as a rule one decisive position only is to be taken up until the cavalry combat has been decided.
- (d) The officer commanding the artillery is on occasions to take the initiative, should he be separated from the cavalry leader, and is never to hang back waiting for orders.

It may sound startling to some ears to hear a doctrine as to ranges advanced which sacrifices so completely the powers of the gun. For a short time other views held the field, but now I think the pendulum is tending to swing the other way, and almost all authorities recognise the fact that decisive ranges must be sought, otherwise at a critical moment the

fire of the guns may be masked, their moral effect will not be so great as it otherwise might be, and the two arms will not work so completely together as they ought. Moreover, the cavalry fight develops with such rapidity that we want every round to be effective ; and, finally, considerations as to the supply of ammunition make us chary of wasting even one. Under such circumstances, and when we do not intend to enter into a protracted contest with guns at all, cover is to be left out of our calculation, and we should think only of so placing ourselves that we may have the best chance of quickly injuring our opponents, and may move off again rapidly if necessary.* It is for these reasons that the limbers are put close behind the guns, and that we place them so without misgivings, in the face of all we know, as to the deadliness of the modern shrapnel shell.

Changes of position are to be avoided because they waste precious moments.

* A note from the Diary of Lieutenant Swabey in the Peninsula throws an interesting light on this subject, and reveals the minor tactics of a period when Horse Artillery was at its very best.

"Apropos of Captain Lefebure, remember in coming into action, when cavalry is likely to come up unperceived, not to let the limbers of the guns turn, or drive farther from the trail than to admit of the gun being worked without the handspike." *See R.A.I. "Proceedings,"* p. 93, vol. xxii.

Let us now see how matters are likely to work out a little in detail.

Two divisions or brigades each accompanied in the former case by two or three batteries, and in the latter by one, are in contact and mean to fight. The country is one suitable for the working of the arms, and for the moment infantry may be left out of our calculations. What is the first thing that will occur after the news that the enemy is close by has been received? The cavalry will be formed in a formation preparatory to attack. How long will it be before the division is ready to move forward? Obviously this will depend largely on the nature of the country through which it is moving, and the previous march formation, but I suppose perhaps sometimes several minutes might be thus occupied. Now during that time it may well happen that the hostile batteries will come into action, and will try and cannonade the squadrons while more or less stationary. I have already said that Horse Artillery are to go to decisive ranges, and, therefore, now, strictly speaking, they should not come into action. But the hostile cavalry are probably not in sight, as yet we are only in a preliminary stage of the combat, and the guns must cover the deployment of their friends if it is interfered with by fire. Therefore they will occasionally now

have to engage the enemy's artillery. But we must remember that they are not to do so in the same spirit in which they act when they are working in their "Corps" capacity. They are to be prepared to move off rapidly again when their friends are ready, and are never to be drawn into a protracted artillery duel. And the same rule, it may be as well to point out, applies to any other occasions during the earlier part of the action when collisions between advanced or rear-guards—little squalls that skim before the storm—may draw fire from the guns.

By the time the three lines are formed the hostile cavalry will probably be in view, our leader will move forward to reconnoitre, the officer commanding the artillery will accompany him, and the guns will be left on the protected flank, moving a little in rear of the first line, or, better still, in front of the centre of it when circumstances allow of their doing so.

To keep the guns on the protected flank has always been regarded as the orthodox arrangement, and when one flank is, owing to natural features or other circumstances, obviously not open to assault, no doubt it is a good one. But who shall say which flank is protected and which not, if you are manœuvring in quite an open country against an active and enterprising opponent? At one stage of the combat he

may threaten you on one side, at another from an opposite direction, and you will be safest with your guns in the centre of your horsemen, ready to move wherever a sudden call may take them.

All the guns should be usually held together in one mass. They will thus accomplish most by their fire, and will interfere least with the free movement of the cavalry. And it may be added here that on the line of march also it will be best to keep all the batteries together with the main body, and not as a rule detach any with the advanced guard, if for no other reason than that they may open fire prematurely, and without a due knowledge of the cavalry commander's intentions, and so force an engagement upon him inopportunately, or under conditions which are not in his favour.

We must bear in mind that at this stage of the action events are rushing on with bewildering variation and rapidity. The two hostile bodies are closing on one another as active cavalry only in an open country can move. There is not much time to think, and none for alteration of plans. Our leader will quickly form his decision, choose the position for the guns (aided in his choice by the artillery commander), and will send the latter to take command of his arm either at once, or, at any rate, when the trails touch the ground.

In very many cases the position selected will be the rising ground from which the reconnaissance is made, but often it may be a favourable site considerably nearer to the foe. Care should be taken that a position good merely from the topographical point of view be not selected, such an one may only be valuable if the fight comes off in a place to fit in with it, and, in a cavalry combat, things often turn out very differently from what is anticipated. The position therefore should not be chosen too soon, for the guns must take their stand where they are sure of commanding the scene of conflict.

I have heard the question as to whether the guns should advance *straight* forward or move slightly to a flank hotly argued. It is but little profitable to waste time over such contentions or pedantries. In nine cases out of ten on the actual field there is only one place which is obviously the best for artillery, and the guns will go to that place whether it be a little on the flank or not ; nay, it may even be granted that a position two or three hundred yards on the flank is the safest for a mediocre commander, who fears lest he may hamper his own cavalry. But the *ideal* move for them is, nevertheless, straight to the front, because thus they will get to work quickest ; and never forget that in combats such

as we are now discussing the artillery have at first to make a race of it to forestall that of the enemy, and everything depends on its getting to its position at the right moment.

Again, however, I must add a saving clause such as all rules in war demand. The cavalry is the principal arm, the predominant partner in the union of which I am now speaking, and the artillery must not forget that it is purely an auxiliary. Therefore the worst fault a gunner could commit would be to interfere with the free movement of the squadrons, or hamper their effective action. If circumstances demand that the cavalry go straight to the front, then the guns must get out of their way to a flank, and they must always be careful that by no chance should they incline *towards* the cavalry during their advance. The bias, if any, should be in the other direction.

Moreover, another reason for guns going straight ahead is that nothing decisive is ever accomplished in a cavalry action except by flank attacks.

The squadrons work away from the guns therefore to gain the enemy's flank. He changes front to face them, and in doing so not only offers a chance of enfilade fire to our batteries, but at the same time masks his own.

"That is all very well," some critic may object, "but what are the enemy about all this time?" Certainly I am only spinning a pretty theory. Nevertheless such is the consummation we hope to reach by our manœuvre, and all we can ever do in war is to try and act correctly ourselves and trust that our foe will make more errors than we will. It is only a question of who makes the most numerous and gross blunders after all, and in seeking perfection for ourselves we need not seek it for the foe also.

When the guns do move into the decisive position they are to go at their best pace.

If more than one battery is engaged it will be best to place the batteries in échelon, the one furthest from the fight being in advance. Each battery can thus change front on a central gun easily, and fire be turned quickly in the different directions which a moving target may necessitate.

How far to the front can they go without undue rashness?

The general rule says that they should advance one-third of the distance which separates the opposing forces. They ought, however, almost always to have a small escort, and then they are safe enough as long as they keep nearer to their friends than to their foes. The exact distance they should go forward must

indeed be left largely to circumstances, but Von Schell, a high authority, agrees with the estimate I have just made. Another distinguished officer has recommended the artillery commander to watch carefully the opposing lines; calculate as far as possible the spot on which the two front lines of squadrons will come in contact, and strive to get into position three hundred yards short of, and the same distance on the flank of, the point of first conflict. We may note how much judgment, how much boldness, how much decision is therefore required on the part of him who leads the guns, and how immediately associated their action, to be effective, must be with that of the other arm.

Some one will, perhaps, object that it is dangerous to send guns thus boldly forward. Why? If the hostile squadrons fall upon them they will do the very thing they should not, and will be playing our game. For if the cavalry and guns are really working together as they ought to be, when the enemy turns on a battery they will expose their own flank to assault, and, in any case, they can after all injure the artillery but to a very small extent. What may appear temerity is, therefore, the surest bid for success.

Moreover, the guns are always the spoil of the victors. From selfish considerations alone, therefore,

artillery should play its last card freely to secure the success of its cavalry, because its own safety must depend entirely on that success.

The guns will probably most often be on the flank, and their outer flank may need protection. A half squadron would usually be detailed for that duty, and might have to dismount some of its files in certain cases to call in the aid of fire.

It is obviously a mistake, however, thus to weaken the cavalry, for they will need every sabre in the coming *mêlée*, and therefore it is possible that a sphere of usefulness may be opened up here for the mounted infantry and machine-guns, in which they may on occasions display their special characteristics with success.

The point to be specially noted is the very short time there will be for the guns to produce an effect, and that against a varying target also. For the artillery officer will have to exercise quick decision as regards the choice of his objective. Is he to fire at the enemy's guns, or at their squadrons? The answer is that the arm at the moment the most dangerous must be attacked, and circumstances must influence him here; but, as I have already said, the general rule is that he fire on the hostile cavalry.

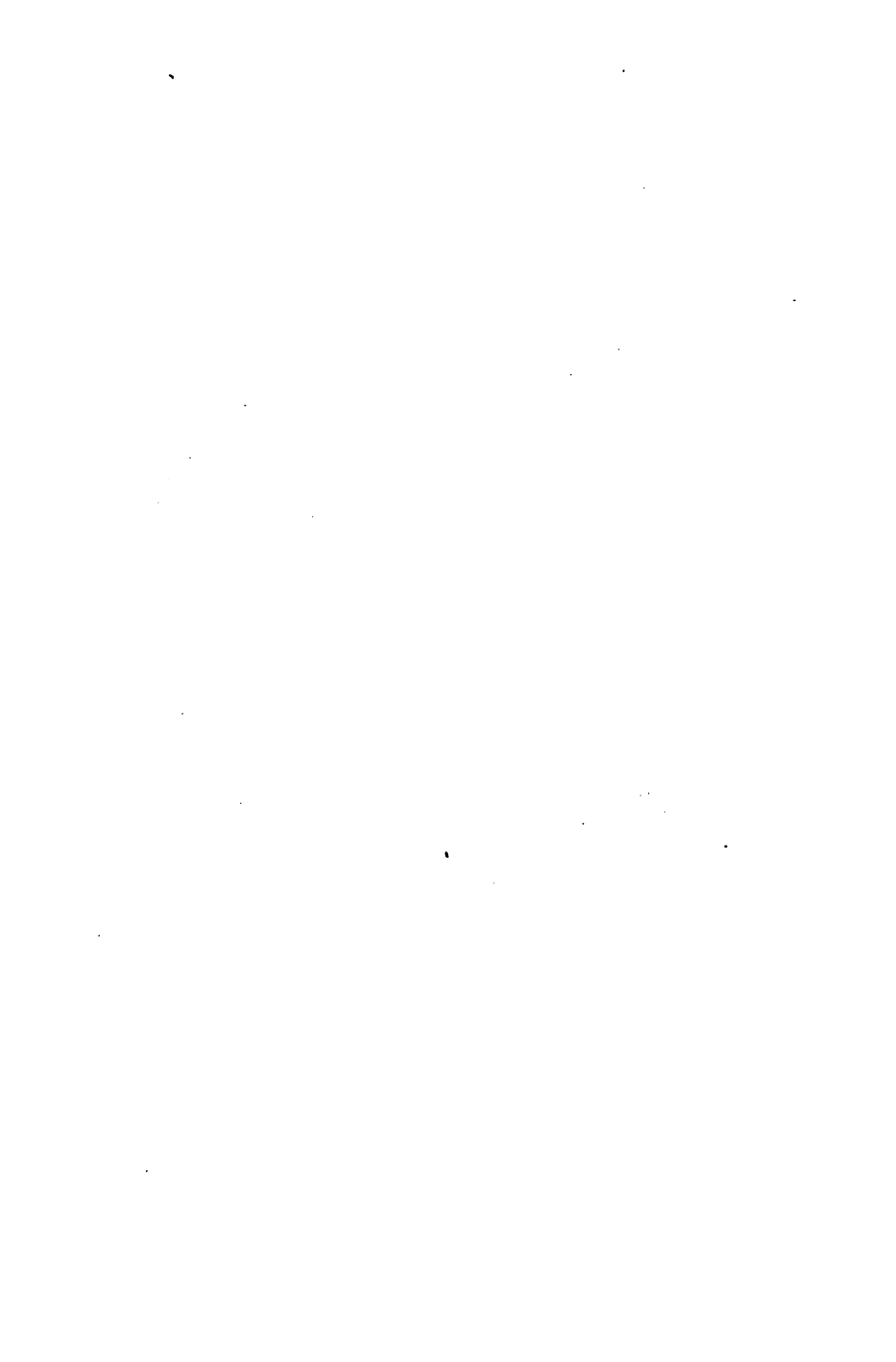
It is for these reasons that extreme quickness, or

what we call smartness, has been looked for, both from officers and men who wear the jacket.* It was

* Sergeant Wightman, whose portrait is here given, was a remarkably fine specimen of the Horse Artilleryman of the Peninsular epoch, and had a very adventurous career. He entered the Royal Horse Artillery in March, 1797, served as a non-commissioned officer in "F" troop during the Peninsular war, 1811-1814, receiving the medal with seven clasps for Ciudad Rodrigo, Badajoz, Salamanca, Vittoria, Nive, Nivelle, St. Sebastian, while he was present at many other minor affairs. He was wounded at St. Jean de Luz, and was specially mentioned in despatches for his gallantry on that occasion. At Waterloo, as sergeant-major, he lost his right arm by a cannon-shot. He afterwards became brigade sergeant-major, Royal Horse Artillery, and was presented with a sword of honour by Lieut.-Colonel Sir Augustus Frazer, K.C.B. In 1825 he was promoted to be a lieutenant of invalid artillery, and accompanied the expedition to Portugal in 1827 as quarter-master, Royal Artillery. He was appointed a Military Knight of Windsor in 1848, and died the same year. The portrait, which is here reproduced by kind permission of the committee, represents him on the horse he rode at Waterloo, and was presented to the Royal Artillery Institution in 1891 by his son, the late Major Wightman, 11th Hussars. There is no doubt that it was he who laid the gun which wounded Marshal Marmont at Salamanca, and caused the loss of his arm. The Marshal, in his *Mémoires*, vol. vii. p. 116 (Paris. Perrotin), thus describes the two interviews he had with him in after years:—"At Ghent, in 1815, previous to Waterloo, they presented to me the quarter-master (*mareschal de logis*) who, on the 23rd of July, 1812, had laid the gun whose discharge had broken my arm an hour before the battle of Salamanca. There could be no mistake; this fatal wound had been caused by a single gun-shot fired at a certain time at a known spot. I gave this under officer a good reception. Since then I saw the same man at Woolwich, where he was a storekeeper (really an officer of invalids having certain duties in the store department), when I was there in 1820 to



SERGEANT-MAJOR JAMES WIGHTMAN, R.H.A.



not through mere bravado, or to please the gallery, therefore, that the old troops took pride in getting off a round quickly, but because, since it was necessary to get to a short range in order to have a chance against their rapidly moving target, none of the fleeting moments might be wasted. Even in these days of high-power guns in combats between cavalry such as we are describing, which will herald the approach of struggles on a larger scale, distances and opportunities will still be short as ever, and the same qualities, both physical and mental, will be needed in the Horse Artilleryman if he is to do his duty properly.

The gunners, too, were, and are, men selected for their physique, because, in order to leap on a limber or mount a horse with facility, something more than the average stature of the soldier is required. The labour of running guns up after their recoil during rapid firing is also immense, and calls for an exertion of considerable physical strength on the part of the detachment.

We may find an illustration of the severe labour that is sometimes thrown on gunners in this respect

visit that magnificent arsenal. There, however, he had but *one* arm, having lost the other at Waterloo. In condoling with him, I said, 'My good fellow, each has his turn!'

from the records of the Egyptian campaign of 1882.

In the very first action of the war two guns were sent forward from Ismalia to gain possession of a dam across the Sweet Water Canal at Magfar. They were in action for several hours in heavy sand, and the detachments became so exhausted by the labour involved in working them that they found themselves completely unable, in several cases, to carry out their duties. The drivers had to be called upon to take their turn at the wheels, and subsequently the aid of the marine artillerymen, who were in action close by, had also to be invoked.

It used to be a question as to what projectile the guns were to use, but now there is no doubt that shrapnel is the only one. It may be impossible, in the short time at disposal, to set fuzes, but there is a system known now as "magazine fire," which obviates the necessity for doing so, and gives excellent results.

As it has only been adopted by us during the last few years, it will be well perhaps if I give a description of how it is carried out for the benefit of my non-professional readers. When cavalry come within 1000 yards of a battery, the ground lying between that distance and case range may be swept completely if the following arrangements are adopted :—

On guns finding themselves in a position where they may be attacked by cavalry, that is to say always in the case of Horse Artillery in a purely cavalry combat, the word "Prepare for cavalry" is given. The gun-layer then sets his left sight at 500 yards and replaces it in the gun, taking care to clamp it firmly so that the concussion of discharge may not cause it to slip down again. The numbers at the limber or waggon fill a portable magazine with three rounds of shrapnel with the fuzes set and clamped at 2 (the division corresponding to about 500 yards). This is taken up to the gun and marked, so that ammunition from it may not be taken by mistake during ordinary fire.

If subsequently during the course of the action a rush upon the guns be attempted, when the hostile cavalry come to within 1000 yards or thereabouts, the battery commander gives the caution, "Cavalry in front" (or as the case may be), "magazine fire."

The three rounds of shrapnel in the "Cavalry" magazine are thereupon fired as rapidly as possible with the elevation for 500 yards.* As the sights and fuzes are already set there should be no delay; the safety pins only have to be pulled out; the sights need

* Since these pages were written it has been laid down that "two fingers" may suffice for elevation.

not be removed between the rounds, and the No. 1 (as the gun captain is termed) will have previously examined the fuzes, and need not again inspect them. Any rounds already in the guns are of course first fired off at the cavalry with the elevation given by the left sight. Should the enemy succeed in getting within 500 yards of the battery, its commander gives the word "Case." That projectile then resorted to, the first round being fired at "two fingers," the second at "one finger," and the third "point blank."

So far as we can judge from the experiences of practice this system gives excellent results, and should render guns capable of dealing successfully with any of the sudden crises which may confront them on the battle-field.

As soon as the two front lines of horsemen have met in conflict, the guns may turn their attention to the second line and reserves, and ward off any flank attack.

In the event of success or failure being distinctly pronounced, the *rôle* of the guns would be obvious and need not be dwelt on ; but occasionally it may be a knotty point for the leader of the batteries to decide whether he should remain in action or whether he should retire to some position in rear. He must leave selfish considerations out of sight. But which will be

best for his friends? Probably to stay unlimbered, for it is during a repulse that guns may be of most assistance, and it is often the last round of case that turns the scale. Yet to stay behind too long may cause the cavalry losses in a desperate attempt to extricate them. The artillery leader in this position has need both of pluck and judgment, and his state may be likened to that of a man watching his friend battling with a wild torrent, and uncertain whether to leap in at once and make an all but hopeless effort to save him, or stay for a moment to launch a boat.

But now, after the first collision, there comes a phase of the fight when I think the guns most often in actual war have found their opportunity.

When we read the story of cavalry combats we find that they have often ended in but "a lame and impotent conclusion." The first lines meet, there is some cutting and hacking, one side begins to yield, then the second lines come up, the fight sways back again, and so on, until what Lord Anglesey, in one of his letters, calls a "see-saw" supervenes, and finally perhaps both sides end by finding themselves very much in the same positions from which they started. What give really decisive results are flank attacks, or artillery fire into squadrons which are attempting to rally.

It is therefore to shatter a foe finally who other-

wise might recover himself that guns must strive, and it is by doing so that they will frequently be of great service. They did good work thus at Benevente in 1808, and again, as I shall presently show, in 1854. Therefore during the combat of the cavalry the officer commanding the artillery should keep a watchful eye on the course of events, and be ready to send his guns, or, if he has three batteries in hand, a portion of them, galloping boldly on after the enemy's squadrons, to give them that knock-down blow that will prevent their showing a front again that day. If the success be a very pronounced one he will also go rapidly on with all his force, to pursue with fire the flying enemy.

In the event of a defeat he must act as circumstances dictate, but it will almost always be best to remain doggedly in position, and fight his guns to the very last. To limber up and try and get away before a pursuing cavalry is, I believe, a hopeless effort. I have read an account by a foreign officer who says no one who has never had actual experience can realise what a panic is apt to seize men then, how quickly the avenging horsemen seem to gain upon you, and how helpless you feel with your back turned to them.

On the other hand a determined attitude has often been rewarded with success in the old days, and, as

an example from modern war, there is the story of how a Prussian battery breasted the torrent, and turned it by its fire, in the fight at Rossbrunn during the campaign in Western Germany in 1866.

And, as a concluding word on tactics, I want further to lay it down as a general principle that, though the Horse Artillery is to assist in every way the cavalry, still the latter is to attack when that one golden moment, which occurs once only in a fight, and once lost is never perhaps regained, offers an opportunity, whether the guns have prepared the way or not. Here, in fact, the relations between guns and cavalry differ absolutely from those between them and infantry. I have heard, I am sorry to say, bigoted artillerymen propound other views, and assert that the cavalry must wait for the batteries to produce their effect. Never! If the guns can act, all the better, but *never* miss a chance through any pedantic scruple as to waiting for them to do so.

There remains one possible phase of a fight to be considered.

The most difficult problem of all for the artillery officer would occur when a mingled mass of friends and foes came surging back upon the guns. It would be a very knotty point to decide whether the guns should, under such circumstances, remain in action or

limber up, in the hope of getting a clear front of fire further to the rear, and the exigencies of the moment must be allowed to settle the problem. As a general rule, however, it will be the best to remain in position. It is in crises such as these that the support of guns may be sufficient to turn the scale, and to withdraw would, in the majority of cases, be a risky proceeding. Von Schell suggests the heroic remedy of firing indiscriminately into the confused mass, thus disentangling it, and forcing the enemy to loosen his grip. There are no instances from war, as far as I am aware, of such drastic methods having been deliberately adopted ; but it is scarcely likely that, even if any officer had had the hardihood to try their effect, a record of his proceedings would be preserved in the Official Account.

There was an occasion during the Crimean war, however, when something of this kind did occur. Dr. W. H. Russell, then correspondent to the *Times*, wrote as follows concerning the action of the Russian artillery after our Light Brigade had made their celebrated charge at Balaclava : " At the very moment when they were about to retreat, an enormous mass of lancers was hurled on their flank. Colonel Shewell, of the 8th Hussars, saw the danger and rode his few men straight at them, cutting his way through with

fearful loss. The other regiments turned and engaged in a desperate encounter. With courage too great almost for credence, they were breaking their way through the columns which enveloped them, when there took place an act of atrocity without parallel in the modern warfare of civilised nations. The Russian gunners, when the storm of cavalry passed, returned to their guns. They saw their own cavalry mingled with the troopers who had just ridden over them, and, to the eternal disgrace of the Russian name, the miscreants poured a murderous volley of grape and canister on the mass of struggling men and horses, mingling friend and foe in one common ruin."

It is to be noted, however, that the action of the Russian artillery was unjustifiable in this case, and was not in accordance with the spirit of Von Schell's recommendations, because our cavalry were not bearing down victoriously on their enemy's position at the moment, but were leaving it. The statements of eye-witnesses, whom I have consulted, likewise throw considerable doubt on the account as given by Dr. Russell; and it is very probable that the Russian gunners acted less deliberately, or even altogether accidentally, and that their friends suffered less at their hands than we are led to believe by him. Should an artillery officer, however, ever be placed in so

trying and painful a situation that, in order to save the bulk of the force he was acting with from destruction, he felt bound to run the risk of sacrificing the lives of some of his friends, his motive would be a commendable one, and should not expose him to censure, far less to execration.

With reference to the value of the assistance some riflemen may be to Horse Artillery in certain situations, and the allusion which has been made to the employment of mounted infantry in this manner, we have, as far as I am aware, no experience in war subsequent to the Crimean era. During the affair of the Bulganak, however, the day before the battle of the Alma was fought, the need for an escort of infantry was felt by our Horse Artillery, and the want was made good in an impromptu manner, which appears to foreshadow what may be done in the future more easily and effectively through our modern organisation.

The Russian cavalry and Horse Artillery were supported by three or four battalions of infantry, and, as these advanced, our two troops of Horse Artillery (I and C), under Brigadier-General Fox Strangways, galloped forward from where they already were in action against the Russian cavalry and Cossacks, their fire from their new position being effective. The Black battery of the Light Division was also soon in

action. The Russian cavalry, feeling the effect of the artillery fire, quickly retired out of range, and "C" troop, as Lord Raglan did not wish a general engagement brought on, moved back to the ground about 300 yards in advance of where it had at first come into action, and fronted the Russian infantry and guns, both of which had now been reinforced. Sir George Brown had by this time got the Light Division up, and extended in line, but just out of sight behind the ridge, and he, or Lord Raglan, desired that some men of the 2nd battalion Rifle Brigade might be taken on the guns of "C" troop to act as sharpshooters, in the event of another advance into action. "This battalion had practised with the Minié rifle at Canterbury in 1853. The Light Division regiments had all, or nearly all, been at Chobham Camp in 1853.

"The riflemen were accordingly placed on each axletree box, one on each trail, and three on the limber boxes; the limber gunners themselves stood on the trail handles, and held on by the limber boxes. This was done with the concurrence of General Strangways, and Sir George Brown was afterwards pleased to call the troop his 'Rifle troop'; however, there was no further attempt on the part of the Russians to renew the fighting, and this ended the 'affair of the Bulganak.'"

It does not seem unreasonable to assume that, had Lord Raglan had at his disposal the resources which one of our leaders of to-day will possess, he would gladly have utilised their services on this occasion ; and the incident is interesting as an example of the unforeseen demands which the exigencies of the battle-field occasionally impose upon us.

CHAPTER III.

EXAMPLES OF CO-OPERATION WHEN ACTING AS AN INDEPENDENT FORCE.

HAVING devoted the previous chapter to a theoretical discussion of the tactics which should govern the employment of cavalry and guns when acting independently, we will now turn to Military History for an illustration of how matters may work out in practice.

Our first example shall be from the Crimean war. It is by no means an ideal picture of what we would wish to occur ; it is indeed far otherwise ; but there are valuable lessons to be learnt from what happened during the Heavy Brigade charge at Balaclava, and from the part which was then taken by the Troop of Horse which was engaged with it.

It will even be profitable to consider what might have occurred had arrangements and equipment been more suitable to the task in hand, and therefore I dwell upon it.

Earlier in the day "I" troop had done splendid service too, and had co-operated with the cavalry divi-

sion under Lord Lucan in a manner which left nothing to be desired. Its leader, Captain Maude, an officer of the highest reputation, was seriously wounded early in the action, and both horses and men suffered severely under the overpowering fire of a far superior force of Russian Artillery, and bore themselves with a fine courage under the trial.

It is however of "C" that I would now speak, not that I think its deeds more praiseworthy, but because I believe they are fuller of instructive experiences in some directions for us.

And as regards the cavalry also I desire at the outset to make my intention perfectly clear. I do not write to glorify my own arm, nor to compose a glowing epitaph for a man whom I never saw, and who died indeed, poor fellow, a few years after the Crimean war was over.* The glory of the heavy charge at Balaclava belongs to our cavalry alone. Although the great mass may have been struck by the fire of Barker's Field battery which was posted near the gorge of Kadikoi, I hardly think that any shot or shell, fired by any of our guns, can be said to have materially assisted in bringing about the Russian defeat; our foes were simply taken aback by the

* Captain Brandling, then Lieut.-Colonel and C.B. for his services in the Crimea, died of consumption at Leeds, 16th April, 1860.

promptness of Scarlett, were beaten by shock tactics pure and simple, by the pluck and dash of our Dragoons, and by nothing else, and I in no sense wish to claim any share of one of the most brilliant feats of history for the Horse Artillerymen. But *after* the foe was first turned back, they did some good service too, and we can learn something from their conduct.

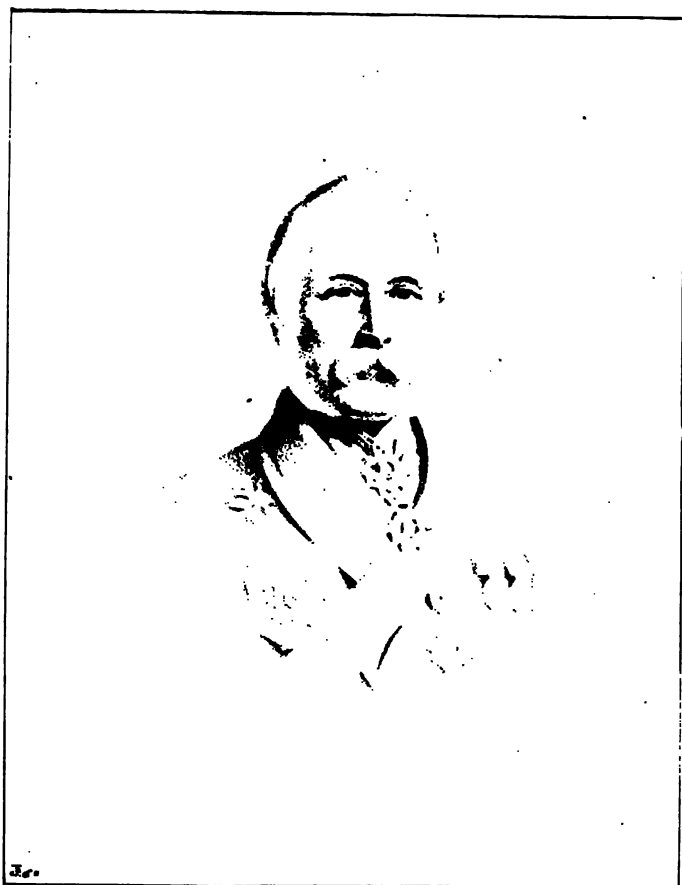
Now I will briefly tell so much of the story of the day as concerns us here.

It is very far indeed from being an ideal cavalry and artillery battle, planned and fought out according as theory directs, and with odds on both sides equal. It is by no means an easy task to find such. There is nearly always something abnormal which spoils the symmetry of the fight. One side or other is supported by infantry, or fights with smooth-bored cannon against rifled ones, or there are no guns present, or one party declines the combat just at the interesting moment. However, I believe there is more than one lesson in the story I am going to tell, and so I will ask my readers to bear with me even if I relate a drama played out, as in war is nearly always the case, scarcely in a way to satisfy rigid and exacting critics.

Seeing the Turks giving way in the gorge of

Kadikoi, Lord Raglan sent eight squadrons of our heavy brigade to their assistance. General Scarlett was in the act of executing this mission and had with him the 5th Dragoon Guards, the Scots Greys, and the Inniskilling Dragoons, in all six squadrons, while two squadrons of the 4th Dragoon Guards were following him, and two of the Royals joined him later. The six squadrons in front had got into two columns, owing to an obstruction in their path, and of these the right-hand column was led by the 1st squadron of the Inniskillings and closed by the two squadrons of the 5th Dragoon Guards, and the one on the left hand by the 2nd squadron of the Inniskillings and closed by two squadrons of the Greys.

No patrols or scouts covered the march of these troops. Suddenly the head of an immense Russian column of cavalry, composed of probably not less than 2000 men, is seen crowning the causeway heights on our left flank not more than seven or eight hundred yards away. Scarlett, on the left flank of our left column, determined at once to attack them, and wheeled the three squadrons beside him into line to the left; the other three, forming the right-hand column, were wheeled to face the enemy too, and constituted what was practically a second line.



GENERAL SIR JAMES SCARLETT, K.C.B.

The 1st squadron of the Inniskillings had gained on the others during the march, and was formed therefore to their right rear.

The three squadrons in front numbered some 300 men, those in rear not quite as many more. The two squadrons of the 4th Dragoon Guards and of the Royal Dragoons were meanwhile moving on to support. Now there is nothing more gallant, or more creditable in the whole of military history, than the manner in which this handful of men behind Scarlett dauntlessly faced and attacked an enemy immensely superior to them in numbers, and moving against them with all the advantage of the ground in their favour. But we cannot pause to dwell on the details even of so glorious a feat. We want to look into the artillery side of the action, and a battery, which should now have been on the spot, was meanwhile straining every nerve to try and find a place in the impending combat.

"C" troop had been quartered with and attached to the light division, and had that morning been called from its camp, five-and-a-half miles away. Why, it will be asked, was not the troop with the cavalry? Why indeed! Except that during the Peninsular war Ross's troop—The Chestnut troop—whose name has become historical, had worked and made its

reputation, not with cavalry, but with Craufurd's celebrated light division. So the precedent supplied



COLONEL SIR AUGUSTUS FRAZER, K.C.B.

by the employment of the "Chestnut troop" in the early days was once more followed.

Moreover, Lieut.-Colonel Sir Augustus Frazer, K.C.B., who is remembered as one of our most distin-

guished officers,* who saw much service in the Peninsula, and who commanded our Horse Artillery in the campaign of 1815, had gained great *kudos* because he, recognising the weight of metal likely to be brought against him in Belgium, had insisted on some of the Horse Artillery batteries being armed with 9-pounders, and carried his point, in spite of the opposition at first of the Duke of Wellington. It is to be remembered, however, that our Horse Artillery batteries at Waterloo were utilised in line with the other guns throughout the day, in the fashion in which we now use them as "corps artillery," and that had any *mánœuvring* taken place a deficiency in mobility would have been observable. Indeed Sir Robert Gardiner, whose troop, "E," did such good service with the cavalry during the retreat from Quatre Bras to Waterloo, wrote that had his guns been other than the 6-pounders they were, they would have fallen into the hands of the enemy.

When the Crimean war broke out we had not been at war as a nation for forty years, and were governed altogether by the traditions of the mighty struggle in the Peninsula. The few grey-haired

* An interesting series of letters by Sir Augustus Frazer from the Peninsula and Netherlands was published in 1859. He died when Director of the Royal Laboratory at Woolwich in 1835.

officers still serving, who had taken part in the great war with France, based their military ideas, naturally enough, on their experiences during the time when last they had taken the field. The armament of our batteries, and their equipment generally, varied but slightly from what they had been in the Great Duke's prime, and I have even heard it stated that there were guns still employed in the service which had been in use with our troops in Spain and Belgium at the commencement of the century. There were only two troops of Horse Artillery in the Crimea, "I" and "C"; of these, "I" had been allotted to the cavalry, and was now with the light brigade, and "C," as I have said, was with the light division.

Far better had it been had another and wiser Peninsular precedent been followed; for that distinguished cavalry leader, the Marquess of Anglesey, or Lord Paget, as he then was, had command of a cavalry division of five regiments and two Horse Artillery batteries during Sir John Moore's campaign in 1808.*

But the fault of not keeping the Horse Artillery with the cavalry was in 1854 further aggravated, in spite of what previous experience had taught, by arming "C" troop with four 9-prs. and two 24-pr. howitzers—

* The 7th, 10th, and 18th Hussars, the 15th Light Dragoons, and the 3rd Light Dragoons of the K.G.L., with "B" and "C" troops, R.H.A.



HORSE ARTILLERY IN ACTION.

an equipment too heavy for Horse Artillery.* A rough road and an unwieldy equipment destroyed the chance the guns had of effectively co-operating. As an eye-witness tells us, the horses "reeled and trembled," when they halted after the excessive strain, and, after all, the troop arrived a few minutes too late.

As it came down from the upland past the Col, the troop was met by a staff officer with a message from Brigadier-General Fox Strangways† (a fine soldier

* The 9-pr. equipment armament of "C" troop in 1854, weighed—gun, 38 cwt. 29 qrs. ; waggon (without spare wheel), 34 cwt. 1 qr. 17 lbs.

6-pr. equipment armament of "I" troop, 28 cwt. 23 lbs. ; waggon, 33 cwt. 3 qrs. 8 lbs.

24-pr. Howitzers for 9-pr. equipment, 39 cwt. 1 qr. 11 lbs. ; waggon, 35 cwt. 1 qr. 20 lbs.

12-pr. Howitzers for 6-pr. equipment, 29 cwt. 17 lbs. ; waggon, 31 cwt. 2 qrs. 13 lbs.

No men on limbers or elsewhere have been included in these weights, which have been kindly obtained for me by Col. F. A. Whinyates.

The weight of the 12 pr. B. L. and limber is 39 cwt. 3 qrs. 9 lbs. "with personal equipment and detachment."

† He served with the 2nd Rocket troop which was sent to Germany in 1813, and was present at the battles of Goerde and Leipzig, where the Rocket troop especially distinguished itself. For his services there he received the order of St. Anne of Russia, and the Swedish Order of the Sword. With the same troop he took part in the triumph of Waterloo, and was there so dangerously wounded that his recovery was regarded as miraculous. He commanded our artillery during the Crimean expedition, fought with it at the Alma, and at Inkerman was killed by the bursting of a shell.

whose portrait forms the frontispiece of this volume, and whose name should be remembered by every artilleryman*), calling it to a certain spot on the left of the heavies. Now "C" troop was at this time commanded by Captain John Brandling, a man who seems to me, from what I have heard of his behaviour on this day, to have had a readiness, resolution, and coolness in action such as mark him out as a man endowed with something akin to genius for war. I do not want to spatter him with indiscriminate praise, as one wise after the event might possibly do.

Some of my readers, who study art, will remember how when Turner was informed of the subtleties and meanings, which most people failed to appreciate, that Ruskin had discovered in his pictures, he laughed and said, "Ruskin sees a good deal more in them than ever I put there!"

Brandling similarly may have acted as much by good luck as good guidance; but it is fair at any rate to give him credit for the latter. And he saw that since the order for him had been given the situation had materially altered. The Russian column was now moving on and seconds were precious. He grasped the fact at once that he could not possibly reach the

* When struck at Inkerman he asked to be taken to the Siege Train Camp, and almost his last words were, "Take me to the gunners, let me die amongst the gunners."

position suggested in time to be of any use, and that from it his fire must quickly be masked. Therefore, without any hesitation or delay, he shouted, "No, I cannot get there in time," or words to that effect, and he drove straight on by the rear of the Dragoons.

Now I say he acted then with the independence that a Horse Artilleryman should show, and he decided moreover most judiciously.

Because in combats such as this, in order to get the fullest effect, both from fire and shock, it is best to let your onset strike the hostile cavalry on the flank furthest from the guns. The enemy, if he then faces your onset, exposes a flank to the artillery, which is able to fire upon him not only up to the very moment of collision, but, should he be overthrown, can pursue him with shells as he retreats.

Now there were two squadrons of the Royals and two of the 4th Dragoon Guards which might fall on the Russian right, and thus constitute an auxiliary flank attack. Therefore, when Brandling went where he did, he seized a position from whence his fire was not likely to be masked, from whence he might hope to assail most effectively his objective during the combat, and from whence he might pursue it most vigorously with fire should it fall back towards its base.

But above all, and that was the consideration we

may be sure which most influenced him, he went where he could most quickly get into action.

So he drove along with his left shoulder turned to the backs of our Dragoons, but all the time watching closely the state of the situation.

When in rear of our line he saw the huge column rolling on down the slope, and he noted what to him might have looked something like hesitation and delay in our first line, for the 1st squadron of the Greys was advancing alone to the attack. At that moment the fight appeared a hopelessly uneven one, and it seemed to him that, in all probability, the mere inertia of the Russian mass would bear our men back. He determined therefore to go somewhat to the rear, in order to cover their retreat. So he called out, "Sub-divisions right wheel," but he himself remained where he was, with his eyes turned on the impending collision. Thus he saw the devoted charge of the 1st squadron, and the rest of the 300 moving off too, and their inroad into the enemy's ranks. He noted too, from the way the Russians bore themselves at that supreme moment, that they were not going to ride us down, and then he determined to throw his lot in decisively, not to avert defeat, but to achieve victory.

He shouted, "Sub-divisions left wheel," and brought his troop up on the right rear of our squadrons.



LIEUT.-COLONEL J. J. BRANDLING, R.A., C.B.



But ere he could get in a round, his front was masked by the first squadron of the Inniskillings, which now crossed him to dash in on the Russian left. On the other flank the 4th Dragoon Guards and the Royals were now no less vigorously pressing, while the 5th Dragoon Guards were storming in to the left rear of the Greys. What takes some time to tell was in reality but a matter of minutes; and soon the monstrous column was more or less disintegrated, and, baffled in its enterprise, retired up the slope.

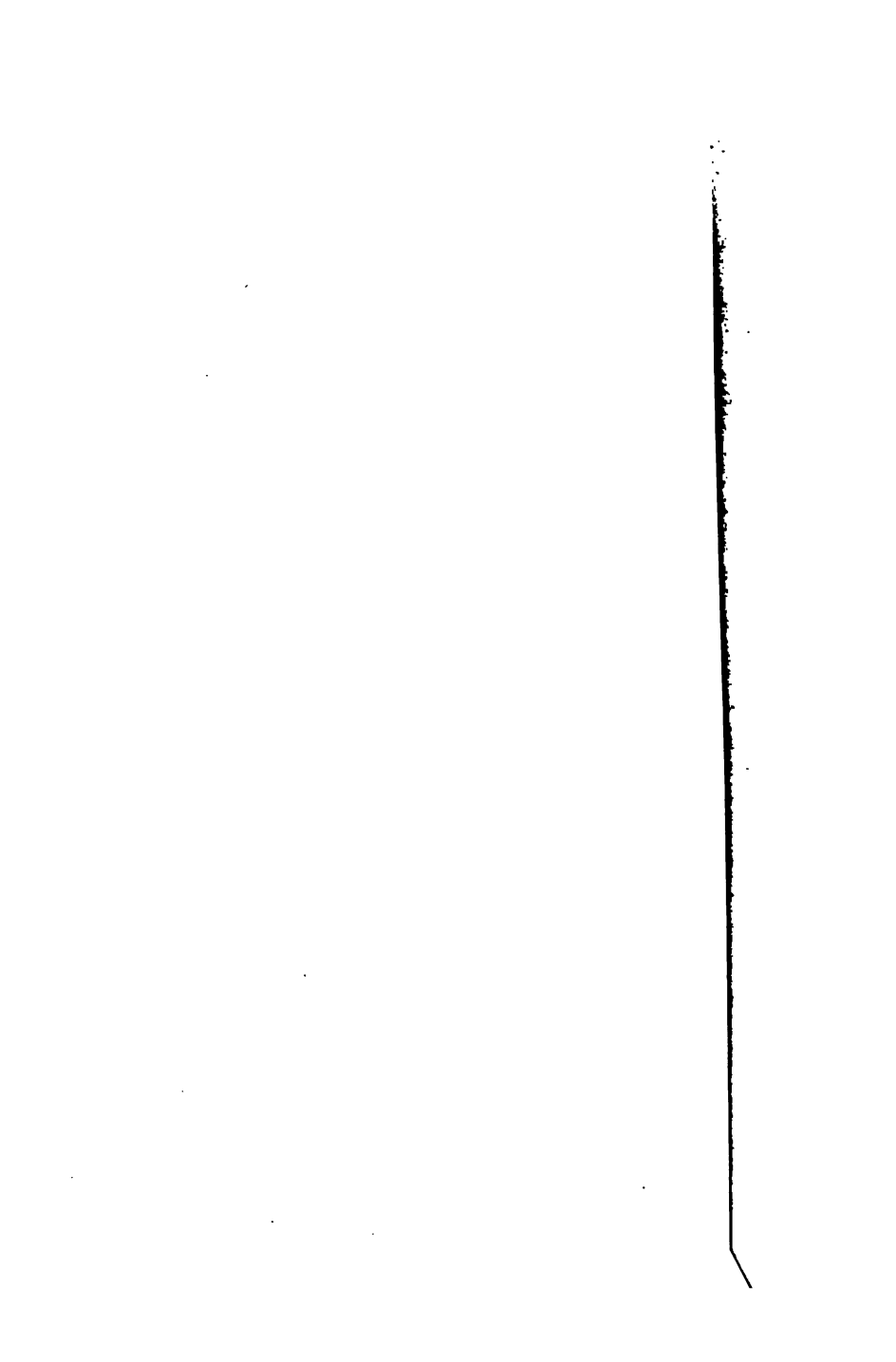
It was now that Brandling at last got his chance.

The moment he saw which way the tide of battle was setting he sprang forward, and even while a few red-coats were still tinging with colour the dull grey mass, he was at work. The column was so large and solid that its very weight held it together, and its rear and left rear could not be reached by our swordsmen. It was not therefore completely scattered, but rather rolled itself sullenly back; and on the high ground behind, the Russian officers were soon seen holding up their swords and rallying their men. I have been in correspondence with three men, happily still living, who acted as "Nos. 1" to three of these guns that day, and their account of the number of rounds fired varies so considerably that I will only say that, whatever may have been the precise total, their fire was

undoubtedly most effective, not only morally so, but physically. General Godman, who was adjutant to the 5th Dragoon Guards on that day, has written : " I well remember the troop of Horse Artillery firing into the retreating mass almost before some of the red-coats were clear of them, and going over the ground next day I saw they did good work."

And from a Russian source testimony as to the effect of the shells has also reached me through the kindness of Colonel F. A. Whinyates, who has devoted so much time and trouble to the history of the troop which he commanded for ten years with such marked distinction.

The artillery fire effectually put an end to any chance of rallying which the Russians may have ever had, and they now quickly retired. A Russian driver and a pair of horses were found killed by the explosion of a shell fired from one of the subsequent positions which the troop took up, and this has possibly given rise to the notion that there may have been some guns in action with our opponents. The driver may however have belonged to something else than a gun, and certainly no artillery came into action with the cavalry on the Russian side during the first conflict with our Heavies, although their advance was preceded by Horse Artillery, who did not however fire upon our cavalry.



The troop now limbered up, went ahead again, then changed front to the right, and came under fire from some guns near No. 2 Redoubt. It subsequently advanced by échelon of half batteries in the direction of some Russian squadrons which were pushed out towards it in a manner that menaced a second attack. The left half troop came into action against these, and its fire was most effective, visibly so indeed, and compelled them quickly to withdraw. The heavy brigade were covering the troop in more or less close proximity to it during this time. We need not here follow Brandling's movements further, and his work with the heavy brigade now practically came to an end ; but I hope I have said enough to show that he acted in a way in which we would wish gunners to act when assisting cavalry, that he utilised all the chances he got, that he showed himself quick, resolute, knowledgeable and bold, that, in one word, he bore himself like a good soldier.*

* With reference to my remarks as to the good service done by Brandling's battery, I think the following letter which I received from the late Lieut.-General Sir Charles Craufurd Fraser, K.C.B., last year, shortly after I had given a lecture on Horse Artillery, will be of interest :—

Cavalry Club, London,
22nd March, 1895.

SIR,—Had the opportunity occurred of my entering into discussion after your lecture, I should have supported your account of the good work done by the Royal Horse Artillery at

And what lessons can we draw from this, as far as artillery is concerned, comparatively imperfect action ?

Balaclava, by quoting the following words from a letter that I received, at the time of the reduction of the Horse Artillery, from Colonel Frank Forster, who took part in the successful charge of the heavy cavalry as a captain in the 4th R.I. Dragoon Guards :—" If there are any officers alive who were in John Brandling's troop of Horse Artillery at Balaclava, they would tell you how his opportune arrival with his guns after the heavy brigade charge saved them from a fresh attack from a very strong force of Russian cavalry. If your Horse Artillery is reduced, your cavalry becomes more feeble than ever."

Further on, March 18th, 1895, he writes :—" John Brandling's troop was not attached to the heavy brigade, and was sent down from the front (on the hill opposite Sebastopol) to assist the cavalry when it was seen that an engagement with the Russians was imminent.

The distance he had to come was about six miles—he did it as fast as he could go—and only arrived in time to open fire on a supporting force of Russian cavalry.

He told me that the horses in his troop were so beat from the pace he had come, he could not have got them much further. They had been worked hard and badly fed ever since they had landed in the Crimea.

I see they are going to increase the Royal Horse Artillery again : what a triumph to you and the others who opposed their reduction."

Yours faithfully,

CHARLES CRAUFURD FRASER,

Lieut.-General.

To

MAJOR E. S. MAY, R.A.

Colonel F. A. Whinyates has also kindly sent me the following reminiscences of Captain John Brandling, supplied by one who served with him in "C" troop during the Crimean war. I give them in his own words :—

"At the Alma the first retirement was at a rapid pace, and

We have, in the first place, an illustration of cavalry acting wisely in not waiting for the guns, for it was

Brandling, who remained well behind next the Russians, swore lustily, 'D——n it ! where are you leading to, keep this shoulder up, the other shoulder up, etc., etc.' At the second retirement the troop had lost a man, and Colonel Lake his horse, and Baddeley, who had surrendered his to the Colonel, was running about with a saddle in his arms, Brandling joking him, though things looked very warm. Just before wheeling about again to advance, Captain Strange came down, and asked Brandling where he was to take the waggons to. Brandling roared out at the top of his voice, smiling all the while, 'Wherever you like, Captain Strange,' repeating it three times; he then ordered the trumpeter to sound 'About' and 'Gallop,' looking as happy as if he were going in at football. There was many a laugh over this afterwards, and—together with the swearing at the previous retirement, and his remaining in the open under fire after putting all he could under cover at the river side—gave the men a great opinion of his coolness in battle; but there was a strong feeling with all ranks that, as the troop was actually in the field before the enemy, the command, as the fortune of war, ought to have been allowed to devolve on the senior Lieutenant (the late Major-General E. J. Michell), who was a highly efficient officer, instead of handing it over to one who was not a *bonâ fide* Horse Artilleryman. (Brandling had been transferred from the siege train.)

"Brandling was a North countryman, and, after explaining things frequently, used the expression 'You know.' On the morning of quitting the Alma he called the Nos. 1 to the front and told them to impress on the men not to get out of the way of the shot when in action, or to use the words 'look-out' to each other when the shot were coming at them adding, in his own style and with a touch of drollery in his eye, 'if a shot is coming to take your head off, you know, it is not a d——d bit of use trying to get out of its way, you know; now I saw that the other day, and I don't want to see it again.' This sort of thing

Scarlett's bold and prompt conduct in at once facing and charging his huge antagonist that gave us the victory.

went down with the men and helped to enliven them in their subsequent hardships. It had reference to the Bulganak, when the mounted detachments received their *Baptême de feu* as cavalry, and found how trying it is to sit still in one long rank and be shot at by artillery ; there was a little easing off and opening of the files, and thus many shots passed through harmlessly. At the Alma the shots were far too numerous to admit of being seen.

"At page 138 'History of "C" Troop,' mention is made of a shot coming close over his shoulder ; his back was toward the Russians at the moment, and the guns were in the act of wheeling towards him in column of sub-divisions. A N.-C. officer called, 'Look out, sir,' as the shot seemed to be coming fair for his back, but he did not take the slightest notice, and merely remarked afterwards to the N.-C. officer, 'I believe I had a narrow shave that time.'

"In October, at the Right Attack, when great vigilance was necessary, he addressed the men thus : 'Oh, good G-d ! if we are going to let the Russians catch us asleep we had a d——d sight better have remained in England, you know ;' and he warned us that, if he caught any night sentry not actively on the alert, he would have him tried by Court-martial. A night or two afterwards he did confine a sentry for not challenging him, though the twilight was barely passed, notwithstanding the man was alert, walking up and down by the horses, and knew the Captain was present, but thought it unnecessarily early to challenge. The man was, however, tried by Court-martial and suffered corporal punishment. Brandling, though hard in many respects, never spared himself—with pick and spade and blistered hands he worked well with the men when they tried to hut themselves on the plateau in November, but he had not the sustaining power of Captain Fraser, and he used to say to him, 'David, I don't know how the devil you manage to get over the ground.' He kept cheery and light-hearted under the most

I say we learn next that guns should *always* be quartered or encamped with the brigade or division of cavalry with which they are to act in the field.

We learn that burthens which may not appear excessive for horses in peace time, or when the guns are acting with infantry, are too great when the strain of rapid work with cavalry on active service is encountered.

I say too that the guns and cavalry must be within easy reach of one another when the crisis of the fight arrives, that the artillery leader must have his eye on the combat, and his finger on its pulse, and must act decisively and rapidly *on his own responsibility*, according as circumstances dictate.

I believe, after all said and done, that it is often in the actions we are discussing largely a matter of this. Even with the best of leaders and the most highly trained troops, in the excitement and hurry of a cavalry fight, who would leave his guns to seek instruc-

adverse circumstances, and with his merry laugh was often heard from the tent at night chaffing the other officers.

“Sir George Brown did not care much for the mounted arms or gay dress, but he began to take a great pride and interest in the troop, and he seemed to think there was no one like Brandling. A kindly recollection of Captain Brandling as Commanding Officer at a memorable time has prompted these remarks. After the war he changed much in character and became a serious and devout man.”

tions, or what cavalry general with his whole attention absorbed, and rightly absorbed, in the skilful manœuvring of his squadrons is likely to make a new scheme to send to his guns, should circumstances alter? A general scheme may be arranged rapidly beforehand; but even in the last minute or two some unforeseen chance may swim up from unseen depths to our eyes, when the plan of attack ought to be altered, and must be altered, if the commander be not an incapable pedant.

Over and over again I feel certain that the leader of the guns must be prepared to measure facts, and play, not by the book, but to the score.

And now let us turn from the days when round shot was still to be found in our limber boxes to a more modern period. As I have already said, there is not much as to the action of Horse Artillery and cavalry working independently to be learnt from the campaign of 1870. There was, however, an affair at Buzancy on the 27th of August, during MacMahon's celebrated flank march to Sedan, which is not unworthy of our attention.

The Saxon cavalry division covering the front of the 12th Corps, which was to cross the Meuse at Dun, had assembled its 23rd Brigade at Landres during the forenoon. The 24th Brigade was sent forward to

the north to reconnoitre, the 18th Lancers working towards the Buzancy-Stenay road, while the 3rd Cavalry with a battery of Horse Artillery, had reached Rémonville, and pushed forward an advanced guard, consisting of one troop of the 1st and two troops of the 5th squadron, towards Buzancy. At about eleven o'clock this advanced guard reported that there was a regiment of French cavalry in front of it, and that the town was occupied by the enemy.

Now, the troops observed were the cavalry of the 5th Corps of the French, which was so disastrously defeated at Beaumont three days later, and which was now formed up at Bar, Brahaut's cavalry division being pushed ahead of it as far as Buzancy. Two squadrons of the 12th Chasseurs were on the south of that town, the issues of which were held by dismounted troopers, but the bulk of the cavalry were still on the north of it.

Meanwhile, on the German side, the 18th Lancers had concluded their reconnaissance, and had moved to Rémonville. The leader of the 24th Brigade (General Senfft von Pilsach), having now united his brigade again, ordered it to move forward through Bayonville. He then rode on to the advanced guard, and, seeing the weakness of the opposition, ordered it to charge the Chasseurs. This was done, and with

such good effect that the hostile squadrons were driven back to Buzancy, and, in spite of the carbine fire with which they were received, the Germans succeeded in pressing into the town after them. There a hand-to-hand *mêlée* ensued, and the French, coming on in superior numbers, gradually forced their opponents from the houses and pursued them for some distance beyond.

But the captain of the 1st squadron (Von Woldersdorf) had taken up a position on the east of the Rémonville road, from which, in the event of the weak advanced guard being forced backward (which was what actually occurred), he might fall on the flank of the pursuing French and take them in a most vital point in the midst of their career of triumph.

Now it seems to me that this same Von Woldersdorf (I do not know if he afterwards rose to distinction or not) was also a man imbued by nature with a special aptitude for war. Many of us can be wise after the fight is over, and there are plenty of men who can show how Napoleon ought to have won Waterloo, or Moltke have lost Gravelotte. But this man was wise before the event, and displayed judgment and decision at a critical juncture during the fleeting moments of a cavalry combat. Ninety-nine officers in a hundred moving in support of that advanced guard would have

manœuvred somewhere in rear of it ; but he, with an instinct which did not lead him astray, carried his command boldly to a position from which the greatest results were bound to follow on its swoop. He appreciated the situation, and recognised the decisive point. Like the other captain whom I have just praised, this man too acted like a born soldier.

The event proved the correctness of his judgment ; his attack on the left flank of the Chasseurs enabled the flying Germans to rally and face their foes, and the Chasseurs, assailed both in front and flank, were driven back once more within the shelter of the houses.

But now the weakness of cavalry is forcibly exemplified to us.

The carbine fire from the village denied further progress to the Saxons, who, under punishment from it, fell back to a distance of some hundreds of yards from it, while the remainder of the brigade moved up to Sivry.

It was now that the guns made their influence felt, and effectively supplemented the efforts of the horsemen. The German battery of Horse Artillery was brought into action on some heights close to, and directed a well-aimed fire on the Chasseurs, who, supported by the musketry fire, were again advanc-

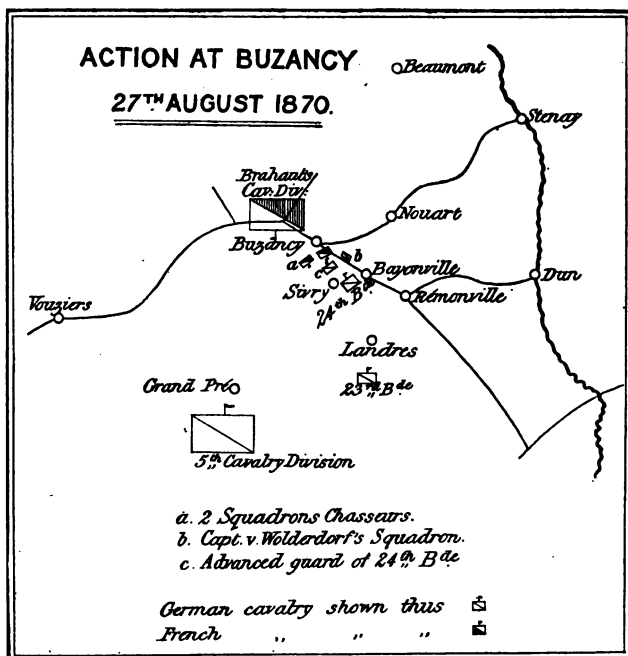
ing. So effective was the fire of these guns, so decisive was their intervention, that, as the Official Account tells us, the French "withdrew in such haste that a squadron of the Lancers (it had not yet been engaged), which was now likewise advancing, was unable to reach them."

At one o'clock the skirmish had come to an end. The two German squadrons who were engaged had lost thirty-two men and twenty-seven horses ; both the captains were wounded. Twelve French Chasseurs and Lieutenant-Colonel de la Porte, who was wounded in several places, were made prisoners. Subsequently the French squadrons fell back from Buzancy, the Saxon Cavalry Division continued its work unmolested, and was sent to reconnoitre towards Nouart late in the afternoon, working towards Nouart, Barri-court, and Villiers-devant-Dieu.

The affair is only regarded as a little skirmish in the German Official Account, and but few paragraphs are devoted to a description of it, yet it is, nevertheless, interesting and remarkable as being, perhaps, the most characteristic, or even the only, purely horse artillery and cavalry action in the whole war. It seems to me also that it is full of instruction for us, and certainly it brings out also the value of artillery well, as the French, although in superior strength both within,

ACTION AT BUZANCY

27TH AUGUST 1870.



PLAN OF ACTION OF BUZANCY.

and on the other side of, Buzancy, are stated to have declined the combat owing to their having no guns to support them.

And what was the result of such a want of enterprise on the part of the French cavalry, or so great a deficiency in the organisation of that cavalry division? Briefly this :

Three days later, the men of the 5th Corps were round their cooking pots at Beaumont getting their dinners ready—just as I shall presently describe how their brethren of Forton's Cavalry had been busied with their breakfasts on the eventful August 16—when German shells came tumbling into their camp and startled them from their repose. Their cavalry had not secured their safety ; in consequence of that they did not know of the foes that were closing in upon them, and the surprise of Beaumont foreshadowed and led up to the disaster of Sedan.

CHAPTER IV.

OPPORTUNITIES ON THE BATTLE-FIELD.

HAVING thus discussed the most difficult and characteristic *rôle* of guns and cavalry, we will turn to study some examples of how they may turn opportunity to account on the battle-field itself.

Of modern instances of such co-operation there are not many ; the cavalry and artillery work in 1866 was not quite satisfactory, and in 1870 the French squadrons were admittedly mismanaged. There was a great cavalry combat certainly on the 16th of August, 1870, at Ville-sur-Yron to the north-west of Mars-la-Tour, but before it took place the German Horse Artillery had been absorbed in the general fight, and no guns supported Barby's charges.

Nor do we find them in the other brilliant charges which occurred on that day, that of the Brigade Redern, or of Bredow's Brigade, the hero of Tobitschau, that one I mean which the Germans call the "Todten-Ritt" ; nor yet was the gallant rush made by the 1st Dragoons of the Guard to stem the French

advance, and extricate the guns on the east of Mars-la-Lour supported directly by artillery. The principle the Germans acted upon is sound, and when once battle is joined cavalry may be utilised independently of guns, because they are then employed in combination with and supported by the other arms, and never assail infantry unless the latter are already demoralised by fire, or taken by surprise.

It has been suggested by some that it would be better that Horse Artillery batteries should form an inseparable, inalienable portion of a cavalry brigade or division, and should not be placed in line with the other guns during a pitched battle. I have heard these very facts about the battle of Vionville, which I have just referred to, quoted as an example of the evil of not preserving Horse Artillery batteries thus exclusively for cavalry work. No general, however, would, I believe, ever hold a number of guns idle on the battle-field, which were capable of inflicting injury on his infantry and artillery opponents, on the chance that they might be needed with his squadrons later on. Certainly no English general could afford to do so, for even according to our latest organisation, which is to add three field batteries to our corps artillery, an English *corps d'armée* will still have to face a foreign corps with only 108 guns against 120.

At Vionville every gun on the German side was needed to hold back the French, who, when they recovered from their first surprise, advanced in superior numbers to sweep away their foe, and it would have been sheer madness to have kept batteries aloof from a battle in which after the first brilliant commencement the Germans had to fight for hours on the defensive, and were forced to make every effort to preserve the ground that they had gained.

I would, however, even go further than this and say that in a general engagement it is better that the cavalry should study the chances of the moment and rely on the character of the fighting in their vicinity, and the situation of the moment for support. It seeks on such an occasion only to act in combination with the other arms, and may, therefore, dispense with the special support which it requires when acting independently.

True, there may be opportunities when cavalry and Horse Artillery moving rapidly, even during the progress of a great battle, may anticipate the foe at some decisive point, and may make or prevent a telling flank movement.

But for such special occasions, special arrangements could, no doubt, be made as the exigencies of the

moment might dictate, and we need not legislate for them beforehand.

There is indeed a very good and instructive lesson as to what Horse Artillery and cavalry can do in this respect, even on the battle-field itself, to be found in the story of the battle of Loigny-Poupriy, and on a smaller scale there are some valuable examples to be drawn from the closing days of the campaign of 1870.

It is usually but futile to discuss the "what might have been," and in war success or failure are facts with which it is more than ever unprofitable to wrestle with or attempt to explain away. Perhaps, however, when we are seeking instruction, it may be permitted us to speculate a little on possibilities, and it would seem that at Gravelotte an opportunity was missed, and that had the mass of the French cavalry, in place of being held aimlessly and helplessly in the rear, been placed in front of the right of the French position, where the ground was favourable to the arm, they might have checked their enemy's advance, and prevented his reaching that wing till the close of the day.

It was on this very right wing that the decisive blow of the day was struck, and had the French not been defeated there, the task of the Germans would have been immensely more difficult than it was; for on the left their success was by no means established.

Indeed, by a bold and judicious employment of cavalry and Horse Artillery the French right might have taken the offensive, and, with the Guard Corps thrown in to its support, such a movement must have been an exceedingly dangerous one to their opponents.

To return, however, to our discussion of actual incidents in warfare, and to go a very long way back indeed. The action of cavalry supported by artillery on the head of a column, to prevent a turning movement, was never more brilliantly illustrated than at Rossbach, where Seydlitz made his decisive charge, and the guns on the Janusberg so efficiently co-operated with him. This, however, is scarcely a modern instance, and we must forego enlarging on it.

There are also examples of how guns and horsemen worked together, sometimes on a very large scale as at Hanau, to be found in the history of the wars of the early century.

Marengo supplies almost the first, and nothing more decisive or brilliant has ever been accomplished in war than the stroke of Kellerman with his 400 sabres.

The story is so well known that it is enough to say here that the Austrians thought they had won the battle, and so sure of his victory was their leader, the veteran Melas, that he left the field at 2 o'clock, and wearied out sought rest. The arrival of Desaix's

corps, however, gave new hope to the French, and stayed their retreating columns. That gallant soldier told Napoleon that, though one battle had been lost, there was still time to gain another, and asked for some guns to aid him. Some eighteen, collected by Marmont, were soon brought into action, and for a time the strides of the Austrian triumph were again checked.

But for a time only.

The brave Desaix was struck down, and the French again began to give way before the masses of their opponents. Marmont's guns, however, caught the victors in flank with a few rounds of grape as they pressed on, and suddenly just in front of them "little Kellerman" swept past with his 400 troopers well in hand. One quick word of command brought the divisions into line by a rapid wheel to the left, and in less time than it takes to write these lines the Austrians were in the most hopeless disorder.

Such was the effect of that opportune blow that General Zach and 2000 imperial soldiers—or 3000 according to Marmont—laid down their arms at once, while four guns and six colours were captured. Eventually the whole Austrian army was not only beaten, but their power was annihilated. Marmont says it was the volley of case from the guns and the

charge coming together just at the right moment that did the deed. "If the charge had been made three minutes later, our guns would have been taken, or they (the Austrians) would have retired, and perhaps, having got over its surprise at the sudden volley, the Austrian infantry might have faced the cavalry. It would have been the same if the charge had preceded the storm of case."

Here we have a salient example of guns and squadrons working together ; but our own experiences, which are always of greater interest than any others, supply us with an equally good one.

It would be difficult to find a better instance on a small scale of Horse Artillery and cavalry making a flank attack during the progress of a general engagement than a feat accomplished during the Indian Mutiny by Tombs's troop of the Bengal Horse Artillery, and eulogised by Kaye in his "Sepoy War."

When on May 30, 1857, Wilson's force reached Ghazee-ood-deen Nuggur, near the river Hindun, it was evident that there would be a struggle. The mountaineers, flushed with victory and filled with confidence, had boldly left their stronghold, and had pressed on to attack the Meerut brigade before it could join hands with the force from Umballa. Some heavy guns were posted on a ridge to the right of

their position, and these opened fire upon our people. We had some 18-pounders too, however, which vigorously replied to this fire, and under the protection of their heavy projectiles our riflemen moved out along the causeway, and came to close quarters with the enemy. The conflict was waged stubbornly on both sides, and the fight was at a standstill till a new force was brought suddenly into play.

The Horse Artillery under Henry Tombs (a name still fondly cherished by the Royal Artillery), supported by the 6th Dragoon Guards (Carabineers), swiftly dashed away to the right, crossed the river Hindun, undeterred either by its rugged bank or dangerous bed, and successfully turned the left flank of the enemy.

Kaye tells us how "under the galling fire then poured in upon them, the mutineers reeled and staggered, and presently broke. Some took refuge in a village, whence they were driven by our riflemen, and soon the whole body of the enemy were in ignominious flight towards the walls of Delhi."

From India in fact may be gleaned splendid illustrations of the value of Horse Artillery and cavalry, of their powers in covering long distances, or carrying through gallant enterprises. India moreover, as I may remind you, has even a claim to be regarded as

the birthplace of the former arm. However that may be, for it is a matter of controversy, it is at any rate certain that we cannot anywhere find mention of brighter exploits than those of which our Indian Horse Artillery can boast, and when future historians may undertake to collect the names which have shed most lustre on Horse Artillery and cavalry, it is to the muster-rolls of the Bengal Artillery, and of the regiments who co-operated with them, that they will frequently have to turn.

But in the far East we have not had to fight European foe with our Horse Artillery, and therefore and because also our Horse Artillery was at its very best during that period, I resort to one of the great battles of the Peninsular War for an illustration. There no doubt have been deeds accomplished on a larger scale, such as may be gleaned from 1814, but nowhere was the danger more imminent, or the crisis sharper than at the battle of Albuera.

Tactical skill is usually only acquired by immense practical experience, and the protracted wars at the commencement of the century taught men to use the materials at their disposal to better advantage than perhaps they have ever done since.

That is why I ask my readers to come back with me all the way to 1811.

When mentioning Horse Artillery in connection with the Peninsular War, it is impossible however to avoid a reference to Major Norman Ramsay. No feat of arms is more celebrated perhaps than that when he charged and broke through the French cavalry at Fuentes d'Onor, and it has secured undying fame, sparkling for ever in the glow eloquence of Napier's. But brilliant as it was, that triumph of audacity is scarcely within the pale of legitimate tactics, and Norman Ramsay's real reputation rests on something more solid and exemplary. He was respected by his comrades as a capable and zealous officer, and beloved as a charming companion and a sincere friend. When he fell at Waterloo no one was more genuinely mourned; there was a universal feeling that the regiment had lost a man difficult or even impossible to replace; and that feeling has endured to this very day. Beneath his picture in the mess at Woolwich hang relics and trinkets which belonged to him and which are cherished with something like affection by his brother officers of the present time. The photograph of his grave hangs there too, and copies of it are to be found in many an artillery officer's house or quarter. That a man who died when only a brevet major more than eighty years ago should have aroused such long-enduring enthusiasm, stamps him as a soldier of more

than common mould. He furnishes, I believe, an almost if not quite unique instance in the annals of our army, and a book on guns and cavalry would hardly be complete without some slight tribute to his name.



MAJOR NORMAN RAMSAY, H.A.

But to proceed. Some may despise, as a shred of ancient history, the example I am going to give, but I believe it is the spirit rather than the letter which we

should dwell upon with reference to the particular part of the subject in our immediate view, and that the old wars may still be studied with advantage.

The special characteristics of cavalry and the mode of its application have not altered at all since the stirring times when the century was young, and guns must co-operate in the future and utilise their mobility just as they did in the past. Indeed I say further that if anyone wants to read of Horse Artillery and cavalry at their very best, he must refer to what those arms did in that wonderful campaign of 1814 in France, when Napoleon showed the world what genius may accomplish against appalling odds. At Rheims,* to give one instance out of many, he turned the left flank of the Russians, under St. Priest, with 8000 cavalry and 30 Horse Artillery guns. But the Allies retaliated in the most brilliant manner at the second battle of Fere Champenoise,† when 20,000 of their horsemen with 128 guns utterly defeated the corps of Marmont and Mortier, 22,000 strong, of whom 17,000 were infantry, and with 84 guns. I think this is perhaps the most astonishing achievement of guns and cavalry which history records, for not a musket was fired on the Allied side, and gunners and troopers worked entirely alone.

* March 15th, 1814.

† March 24th, 1814.

It will be impossible I fear to analyse Albuera very closely as regards cavalry and Horse Artillery, for the records on the subject are singularly bad. They did not publish Official Accounts in those days ; there were no war correspondents ; the great authority, Napier, was an infantry soldier, and I think he has sometimes failed to do full justice to the cavalry and artillery. We know from the glowing pages, which tell the story of "the fatal hill," "with what a strength and majesty the British soldier fights." "That astonishing infantry" surely deserved every word he said of them and more, but it is disappointing nevertheless to find the equally gallant efforts of the 3rd and 4th Dragoon Guards, who with four guns of "D" troop held our right flank against the efforts of the powerful French cavalry, but comparatively briefly referred to.

Let us stay for a moment to see what they did ; though I will only speak very generally of the operations except in so far as they affected the cavalry and Horse Artillery.

Beresford on the 16th of May had taken up a position at Albuera to receive Soult who was marching to the relief of Badajoz. The Spaniards were on his right, the English in the centre, the Portuguese on his left. The cavalry and Horse Artillery were extended

along his front, their left appyed on the village of Albuera. On the high ground above the village the four guns of "D" troop,* R.H.A., under the command of Captain Lefebure were in action.

The whole force under Beresford amounted to about 27,000 infantry, of whom only about 7500 however were British, 2000 cavalry and 38 guns. Against these Soult brought some 20,000 veteran infantry, 4500 cavalry, and 52 guns—authorities differ as to the exact numbers, but these are near the mark. Beresford had neglected to occupy a wooded hill on his right front between the Ferdia and Albuera rivers. Behind this hill Soult accordingly massed his heavy cavalry under Latour Maubourg, and his 5th Corps, while he made a feint of attacking the bridge leading across the stream to Albuera with the remainder. Between eight and nine o'clock Alten's Light Infantry Brigade of the King's German Legion, which was holding the village and bridge of Albuera, was assailed, and a sharp contest ensued. But it was soon evident that the real attack was to be on our right, for two-thirds of the French infantry was seen to counter-march to its left, while their light cavalry wheeled about too, and galloped rapidly up the left bank of

* Two guns had been left behind at Lisbon, and had not yet joined.

the Albuera to join the remainder of their horse in an attempt to outflank and overwhelm our right.

The Spaniards were ordered to change front to the right, the second division was moved to their support, while the Portuguese were carried to the centre, with the exception of one brigade which was sent to support Alten. The 13th Light Dragoons were left above the bridge, but Lumley's heavy brigade, consisting of the 3rd and 4th Dragoon Guards and the Horse Artillery battery, was hurried as fast as possible to the extreme right to cover our flank, which was much exposed, and was being threatened by heavy masses of French cavalry and artillery.

The Spanish General was both obstinate and incapable, his troops failed to carry out the orders they had received as promptly as they should have done, and the French were upon them ere they had completed the necessary movements. In half-an-hour Beresford's position was a desperate one, and defeat or victory hung in the balance till the very end of the battle. The complete story of that fight must be studied elsewhere. It is enough to say now that the duties which were thrust on the cavalry and guns on the right, where some very hard fighting took place, were as arduous as perhaps fell to the lot of any of the troops. Again and again did Soult throw squadron

after squadron upon them; and often were they all but overwhelmed. "D" troop was ridden through several times by the enemy's horsemen and for a short period they gained possession of one of its guns. It was however soon recovered, and Lumley was able to hold the inundation back until Hardinge's inspiration saved the day, and the celebrated charge of the Fusiliers pushed Soult's columns down "the fatal hill." *

But before that crowning stroke, let me remind my readers that the fate of the day had already been

* Sir Evelyn Wood last year did me the honour to preside at a lecture in which I mentioned Albuera, and afterwards told the following anecdote as to the influence which Hardinge had on the fortunes of the fight :—"I will tell you a story which may interest you, which occurred to me after having seen the synopsis of the lecture as regards Albuera. Napier tells the story, and tells it very well—that Colonel Hardinge sent back those troops which had retired from *there, i.e., the bridge (pointing to the map)* and ordered up the Fusilier brigade. I asked Arthur Hardinge (I was there in 1888, going thence straight to Gibraltar) 'is that true?' 'Oh, no,' he said, 'not a bit of it, my father often talked to me about it. But he was trying to persuade Beresford to hold on.' Beresford was a very brave man, and I should not tell you the story except that it is very well known; but he had been greatly 'hustled'; a Polish lancer had got behind him and he very nearly got his spear into the general, who caught the lance and turned it away. There were three or four others trying to kill him at the moment, and Beresford, seeing so many men down, had his head inclined backwards, when Hardinge rode up to him and said, 'I think, Sir, I ought to tell you that you have a peerage in one hand and a Court-martial in the other.' Beresford waited a moment or two and then turned round and said, 'I will go for the peerage.' That is really what occurred!"

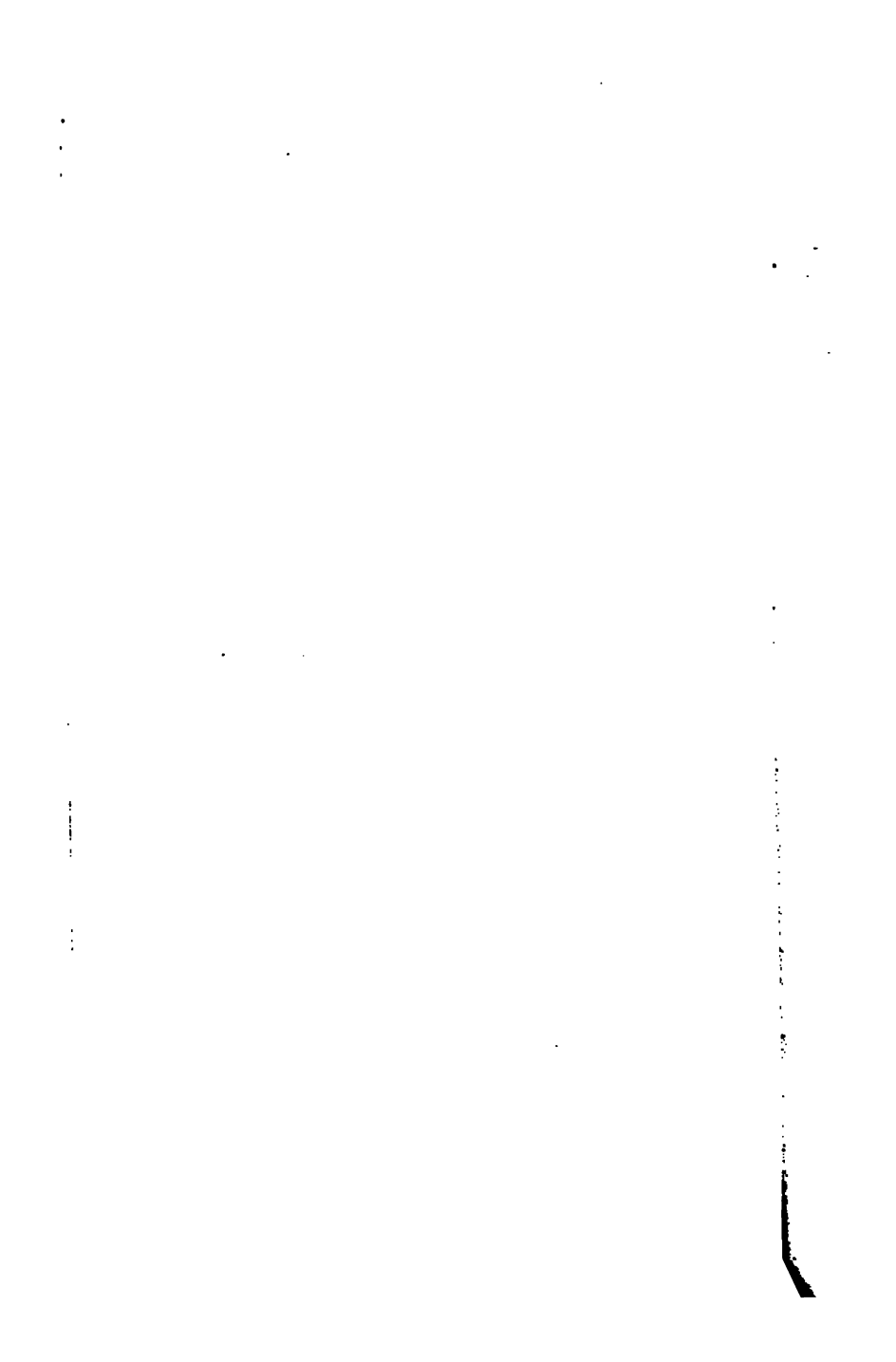
snatched out of the fire by Lumley's promptness, and the courage and devotion of four of his heavy squadrons, who fell on the French Hussars and Polish Lancers in the moment of their triumph.

But for him even that irresistible charge of the Fusiliers might have been impossible, and at the most it could only have mitigated a serious defeat.

Four of these regiments had suddenly caught Colborne's Brigade and Cleeve's and Hawker's guns at a disadvantage in the rain and mist, had taken them in flank and rear, had slain or captured two-thirds of the brigade and six of the guns, and had penetrated to almost every part of our position. Beresford himself, caught in the torrent, had a hand-to-hand encounter with a Polish Lancer, and owed his life to his great personal strength and courage.

One of Colborne's battalions, however, stood firmly on the heights, and our Cavalry were at hand in the hour of need. Never in fact did the three arms more loyally co-operate than at this crisis. There have been bigger battles, but none I think more glorious to our soldiers.

I wish I could give closer details of such a fight, but I have found that to try and find particulars of some of these glorious actions of the great wars is a most hopeless and disappointing task. At the time



perhaps men were too occupied in the constant fighting to write of what they had seen and done, but this hardly explains the apathy shown, subsequently, towards collecting any adequate accounts of the great deeds of our regiments being preserved. The official regimental histories of the 3rd and 4th Dragoon Guards dismiss achievements that should be cherished by every man in their ranks in a few niggardly lines.

The Artillery despatch was unfortunately lost, and we have only certain private letters from some of the officers engaged to go upon. But the good service done by the Cavalry and guns is recognised handsomely, if too briefly for the student's needs, by everyone who has written of that day. Marshal Beresford's despatch was most flattering to the Artillery, and so was that of General Lumley, while Brigadier-General Long* who commanded our Light Cavalry writes in a private letter:—"The dispersion of our Cavalry scarcely left us 400 or 500 British at any point, and these with two regiments of Spaniards, were all we had to offer by way of resistance to their numerous and overwhelming columns. The ground however favoured us, and the Horse Artillery did its duty with brilliant effect. The enemy lost a great

* Extract from a letter of Brigadier-General R. B. Long, from "Bivouac near Vicente," dated the 26th June, 1811.

number of men, and from 400 to 500 horses by the operation of this arm alone." Consider what a loss of 400 or 500 horses means to a Cavalry division on active service ! I think everyone will agree with me that to inflict such a loss as that under the circumstances argues well for the coolness and courage of the gunners.

And now is there no lesson to be drawn from this ancient history ? May not guns and Cavalry be called upon in the future to play just the same part in which their predecessors distinguished themselves in those far-off days ? Can we ensure genius on the part of our generals now any more than we could then, and under similar conditions of leadership and atmosphere might not precisely the same incidents once more recur ? A dull man and a rainy day ! Is the combination an absolutely remote contingency even in this nineteenth century ? If not, then I say, a weak flank may once more have to be protected against the inroad of an overbearing foe, British infantry and guns may again be surprised and ridden over by an active Cavalry, and the vigilance and readiness of the same arm on our own side may again be indispensable if disaster is to be retrieved.

Nine days afterwards there was a brilliant little cavalry fight at Usagre when Lumley with his two

fine regiments, Madden's Portuguese, and "D" troop, was attacked by Latour Maubourg with the whole of his Cavalry division and some guns. As we are discussing Albuera it is a pity not to mention it here.

The French were driven off with a loss of 200 men for, as a letter from an officer engaged says cheerfully, "the instant our jolly fellows came near them, they turned and were sabred in good style." That fight, however, strictly speaking, hardly comes under the category of those we are now dealing with, nor does Ribera, where the services of "D" troop were again especially brilliant, and probably no man ever received a higher tribute than did Captain E. C. Whinyates who was its second captain. But I may just mention that during a communication after the action under a flag of truce the French leader, General Lallemand, made particular inquiries for the name of the officer who had commanded the guns near the river, and on learning it sent the following message to Captain Whinyates.*

* Sir E. C. Whinyates, K.C.B. and K.H., had a most distinguished career in the Artillery. He joined in 1798, and a year later accompanied the expedition to the Helder under Abercromby. He afterwards took part in the campaign in North Holland under the Duke of York, and served at the capture of Madeira in 1801. In 1807 he was appointed adjutant to the artillery of the army under Lord Cathcart, and was employed in the attack on Copenhagen, where he commanded one of the principal batteries during the siege. In 1810 he went to the Peninsula as second captain of "D," Lefebure's, troop of

"Tell that brave man that if it had not been for him I should have beaten your cavalry, but that meeting



GENERAL SIR E. C. WHINYATES, K.C.B.

Royal Horse Artillery, remained there for three years, and saw much fighting. At Waterloo he had three horses shot under him, was struck by a round shot in the leg, and severely wounded in the left arm towards the close of the battle. He died at Cheltenham, 1865.

me in every movement with his fire, he never would allow me to form for attack. Say that I shall mention his name in my orders as having been the cause of our defeat, and not your cavalry. Be sure you tell him this. Promise to give him my message."

Such instances as I have just dealt with may, however, be regarded as the minor incidents of a fight, of a character, viewed relatively to the great places of the whole struggle, such as are borne by the personal acts of bravery performed by individuals in a *mêlée*. For great strokes conceived and carried out on a large scale, mobility and co-operation are nevertheless even more essential.

Guns may be combined for various objects during an engagement. To make or repel a flank attack, to fill a gap in one's own, or to force an entry into an opponent's, line. A capable leader, who understands the arm, has a full control over it, and can rely on its rising to his expectations, has often in the history of war turned it on such occasions nobly to account. In the two battles we will now deal with we shall find mobility enabling it to meet the demands of every one of the eventualities I have alluded to.

Let us look at Wagram first, and as we do so I must presume that my readers are acquainted with the story of the campaign of 1809 up to the morning

of July 6, the day following that on which Napoleon had gained the left bank of the Danube with his whole army.

When the Archduke's attack on his right, in the early dawn of the 6th of July, took Napoleon by surprise, he had to hurry to support Davout with his guard and its artillery from Raasdorf, where they had bivouacked the previous evening, to Glinzendorf where the Austrian left was pressing on. The distance, as the crow flies, is some three-and-a-half miles. There are no roads even now to compare with those we are accustomed to in England, and the fields on either side of the unmetalled tracks were then green with corn and cultivation. When I walked over the ground, four years ago, it was winter, and at every step one sank ankle deep into the soft alluvial soil of those level plains. But the crops must have made movement even more difficult in summer, and these batteries I speak of had to cover a lot of ground that day.

For when the threatened inroad of the Austrians at Glinzendorf had been forced back, a new danger awaited Napoleon in his centre near Aderklaa. There, too, the Austrians were coming on with triumphant strides, and the same batteries that had stemmed their raid on the French right flank at one end of the

battle, were now needed at the other to restore the fight, and fill the gap in their dangerously weakened centre. Napoleon, at the head of the cavalry and Horse Artillery, galloped himself to the new point of danger. The remaining batteries of his Guard, that is to say six Field, followed him with all the speed they could command, and their rapid flank march lay once again over the cultivated fields.

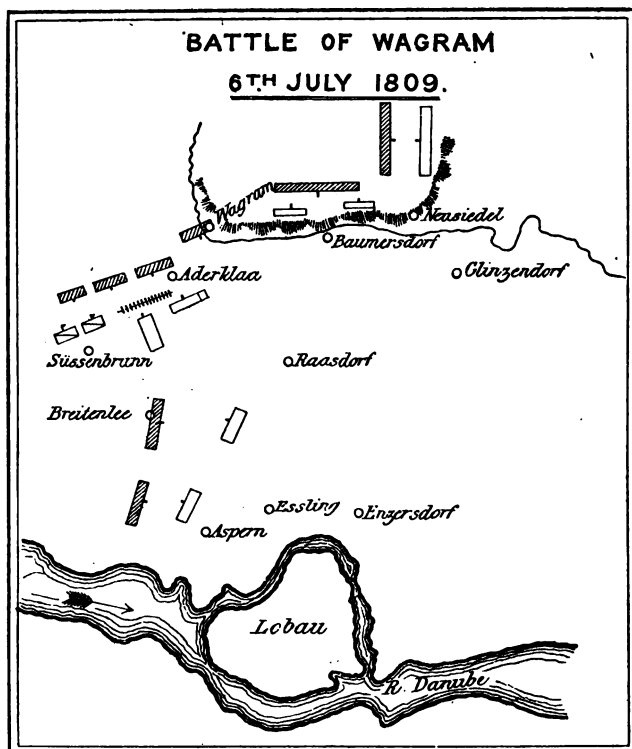
I have often wondered how that wonderful change of position was made. The distance, as the crow flies, is some four miles and a half, and, as I have said, the ground traversed is a level, highly cultivated plain. There had been a deluge of rain, too, on the night but one before, the ground must have been soft and soppy, and the long stalks of corn and herbage must have become entwined with the wheels of the carriages. To carry a mass of sixty guns such a distance at a crisis in the course of a battle seems to me a great performance, and it argues immense manœuvring power and skill both on the part of the batteries and of those that led them.

When they gained the angle of the French line near Aderklaa they closed the breach the Austrians had made, and subsequently, after Davout had carried the heights above Neusiedel, and was driving the Austrian left before him, these same guns and forty

more were thrown into the fight under Lauriston to clear the way for Macdonald's celebrated column, and trotted out ahead to come to close quarters with the enemy. The deeds of the vast mass of artillery so formed are a leading illustration in all tactical works, and have become one of the common-places of military history. But the display of mobility made by them has been hardly so much recognised, yet it seems to me a no less striking feature of their performance.

In a brief survey it is impossible to give a clear picture of all the incidents in a very complicated battle, and truly the incidents of Wagram succeed one another with the swiftness and variety of a kaleidoscope. While the French were winning at one end of the field they were at times being beaten at another, and the balance swayed for a long time in uncertainty ere the fortunes of the Austrians kicked the beam. Artillery was called upon more than once to throw its weight into the scales, and while its tremendous fire, exemplified in Lauriston's huge battery, won the day, its mobility was also indispensable to the victors.

Now let us turn to Loigny-Poupry, a great artillery fight of sixty years later. There also we are bewildered by the numerous and changeful features of the fighting. There also we see the mobility of artillery utilised both to make and repel an attack,



BATTLE OF WAGRAM.

this time on a flank. There, too, it was the fire of artillery which went far to win the day for the Germans. In a word, the mobility and combined handling of certain batteries were displayed to such an advantage on the battle-field itself that, of all the great fights of 1870, this one has called forth the special admiration of the German General Staff.

I will try and give a brief summary of what occurred.

On December 2, 1870, Von der Tann, with the 1st Bavarian Corps, was facing south-west at La Maladerie. About eight o'clock the French 16th Corps, advanced from Terminiers, Villepion, and Nonneville towards Loigny and Lumeau. Von der Tann had received orders to join hands with the German forces to the eastward, and to take up a position with his left resting on Chateau Goury. The 4th Cavalry Division he was told would cover his right, while the 17th Division was moving on Lumeau, and the 22nd on Baigneux to his assistance. But when, in accordance with these instructions, he took ground to his left, the French advance threatened his movement, and the 2nd Division was deployed in action about 9.30 o'clock between Beauvilliers Farm and Chateau Goury. Here six batteries much distinguished themselves and formed a solid framework for their infantry, hard pressed by a superior foe, to rally on.

Since we are especially considering the mobility displayed by guns on this day, we will not pause to describe the closely contested struggle which ensued. The French at first pressed on triumphantly. Then a brilliant counter-attack by the 3rd Bavarian Brigade achieved a temporary success, and forced their opponents in some disorder back as far as Loigny. But the whole French 16th Corps now advanced on the line Nonneville-Neuvilliers, and the brigade had to fall back with heavy loss. The batteries nobly stemmed the rush of the attack, and faced the hostile skirmishers while their comrades rallied behind them. They had, however, to give way also, and were compelled to fall back to a second position where they were reinforced by two batteries from the Reserve Artillery, and a chance was given to the infantry to rally and recover themselves.

Some little time previously, however, two Horse Artillery Batteries, with an escort of cavalry, from the 17th Division, had appeared to the south of Chateau Gourg, and their fire, taking the enemy's advance as it did in flank, was of immense service in bringing it to a standstill.

Meanwhile the 4th Cavalry Division and the Bavarian Cuirassier Brigade had commenced a turning movement against the French left. La Maladerie

and Orgères were evacuated as they approached, and soon the two Horse Artillery Batteries and that belonging to the Bavarian Cuirassier Brigade were in action at La Frileuse.

It will be as well to make one story of the performances of these batteries as it is on the mobility which they displayed in making this flank attack that I desire to dwell.

At two o'clock, therefore, an even bolder attack was determined on by Prince Albrecht, who commanded them.

The 9th Cavalry Brigade (two Uhlan Regiments) and the 5th Cuirassier Regiment were to go forward on the line Gommiers-Terminiers to cut the enemy's line of retreat, while the Bavarian Cuirassier Brigade was to sweep round still further on the German right.

The 10th Cavalry Brigade (two regiments) was to be held in reserve.

The batteries to accompany the cavalry.

While the movement was in progress, however, French guns opened fire from Faverolles and Gommiers, and the Cavalry Division fell back to Chauveux Farm, one Horse Artillery Battery came into action on the north-west of Nonneville against a French battery on the north of Villepion, and two Bavarian Horse Artillery Batteries also hurried up across country at a

rapid trot from where they had been in action at La Maladerie and supported it from the south-west of Nonneville. When the hostile guns had been silenced this battery again moved forward and unlimbered on the right of the Bavarian batteries. The three soon drove the French guns at Faverolles off the field, and then commenced to shell the village and the infantry posted there.

About three o'clock several regiments of French cavalry attempted to advance from the west of Guillonville, but as soon as they appeared the Horse Artillery Battery, which was waiting at Chauveux Farm trotted out to meet them, and its fire was so effective that the French horsemen turned and left the field. Its fellow battery also joined in the fight with the cavalry at a range of 1200 metres. A second attempt which the cavalry made to advance from the other side of the village was similarly foiled by the fire of these two batteries, and we read that the French squadrons retreated so precipitately that the three Cuirassier regiments sent out from Chauveux Farm to attack them, could never catch them up.

Now the mobility displayed in these different movements by the German batteries is most praiseworthy. The performances of the Bavarian ones are especially remarkable, and they covered distances of

5000 metres (more than three miles) over the fields at a rapid pace, and showed the greatest quickness and readiness also in the various minor changes of position. From La Maladerie to Faverolles is more than four miles, and from Nonneville to La Frileuse two, distances being measured in each case as the crow flies.

The ground was fairly level, as is the plain of the Marchfeld. It should be noted, however, that there was a sharp frost, and that the surface of the fields was hard and favourable therefore to the guns. Yet the movements just described are, nevertheless, a remarkable display of mobility, and General Chanzy has admitted that the bold flank attack was of the greatest effect, and that Admiral Jauréguiberry, who commanded the 1st French Division, was led to imagine by it that his left was about to be assailed by overpowering hostile forces.

We must leave the main battle now, and glance at another striking example of mobility on the part of batteries at the other side of the arena.

I have shown with what readiness the Horse Artillery guns of the 17th Division hurried forward to assail the other flank of the French. The remaining batteries followed their example no less satisfactorily, but I would pass over their achievements, since we have

no space to devote to a detailed account of them, to call attention to the action of those of the 22nd Division. This division had assembled on the morning of the battle on the east of Tivernon, and at nine o'clock set out to march by Santilly on Baigneux.

When it arrived at Baigneux (about six miles as the crow flies) between 11 and 11.30 o'clock, its leader, General von Wittich, learnt news of the fighting before him and sent forward his six batteries some two miles further to attack the enemy who were assailing Lumeau. It is not my purpose here to enter into a minute description of how this mass of guns acted ; of how its component parts prepared the way for and supported the attack of the infantry to which it was attached ; or to tell, in the words of the official narrative, how it forced its way onward at "trot and gallop," and, finally, how it poured its concentrated fire at the "most effective ranges," from south-west of Anneux, into the flank of the French attack.

Nor shall I ask you to consider the no less workmanlike manner in which the guns of the 17th Division were handled on the west of Lumeau.

For what is more relevant to the special subject we are considering is another brilliant illustration of activity which the six Field Batteries of the 22nd Division were to give when news reached its com-

mander that the 15th French Corps had advanced past Artenay on the road to Paris, and that its 3rd Division had fallen on the 3rd German Brigade of Cavalry near Dambron and driven it back. The foe had then turned towards Poupriy, perceiving that the 22nd Division were fighting as has been described.

Von Wittich promptly wheeled his division round on its left to face the new danger, and we are told that his Artillery Commander, Colonel von Bronikowski, personally led three Field Batteries, in line at full interval, at a trot across country to the south of Poupriy, where he brought them into action. The other three batteries followed no less rapidly in the same formation, and were soon unlimbered in line with the others on their right flank.

Thus these batteries, like those of the Guard at Wagram, were snatched out of one battle and hurried across country to interpose with most effective energy in another widely distant from the first, and, having just carried out a flank attack, now turned their energies to repel one. The exact distance traversed by these batteries in this last change of position is a little more than two miles. The stretch of ground covered does not strike one as enormous, nevertheless I think every artillery officer will admit that for Field Batteries, and two of them were Heavy Field Batteries,

to advance in line at a trot across a cultivated plain, such as lay between Loigny and Poupry, after all they had done that day, was a performance of which any artillery might feel proud.

And their labours were by no means over when they reached their latest position, for they had to sustain an obstinate struggle against seven French batteries and a superior force of infantry until darkness set in and the fight died out. Two of them had, moreover, again to utilise their mobility during this last fight, for one was called from the south of Poupry to the northern edge of the copses on the north of the village, and in doing so had to make a march of some two miles and a half, while another moved from the south to the immediate north of the village, and covered in two moves about a mile of ground.

Mobility is the most marked characteristic of the performances of the German batteries, but in respect to another point in their handling on this day they are also to be commended.

They were everywhere used in concentrated masses, and combined their fire on one target. Such a method of working batteries is now almost universally recognised as the only true one for artillery to adopt. Occasionally one hears a plausible suggestion put

forward as to concentrating fire, but dispersing batteries. On paper the idea appears to have much to recommend it, but in practice it is found to be a fallacious one, because you cannot obtain unity of direction, in other words, concentration of fire, if it be adopted. For one man to direct the fire of five or six batteries, even if they be all formed up in line together, is an exceedingly difficult task, but if the mass be split up into several portions, the intervals between which are taken up by other troops, it is probably not an exaggeration to describe it as impossible.

And we should note also that not only is concentration one of the essentials to the successful action of artillery, but that the concentration of batteries should be accompanied also with their simultaneous and sudden appearance.

Now, where large masses of guns are concerned, to effect a great concentration of guns in the last stages of the fight, either to force a way for the assaulting columns after the Napoleonic fashion, or for some other purpose, means that batteries may possibly have to be withdrawn rapidly from another part of the field, and brought into action again against the point selected for attack. Formerly a reserve of artillery was held in hand for this purpose, but nowadays when guns are endowed with immense range they all may be

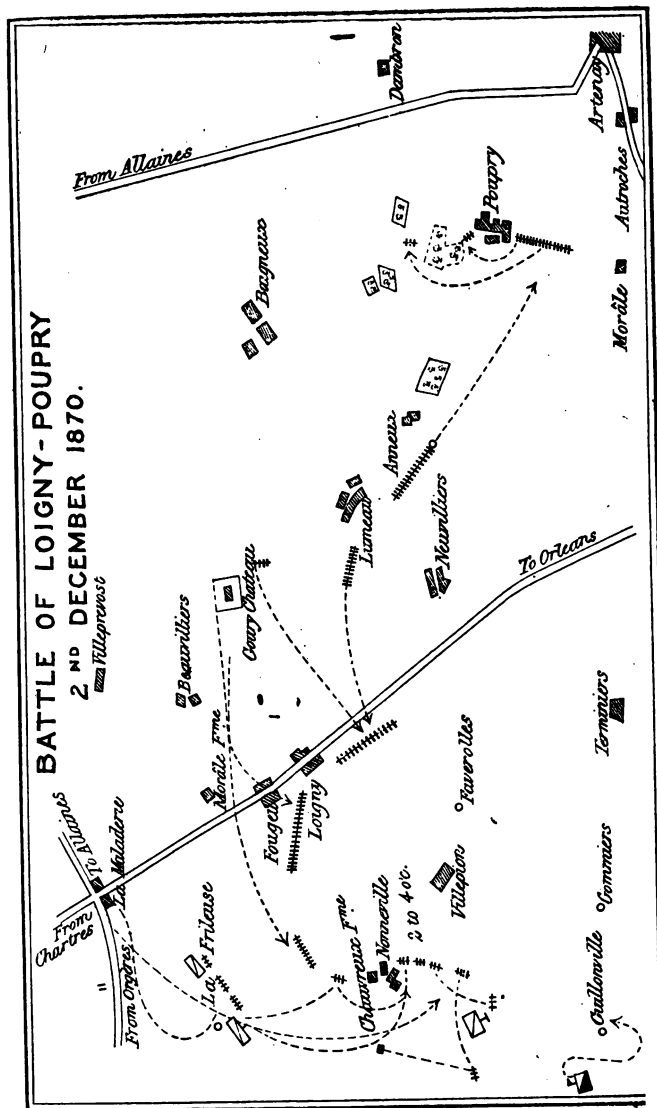
utilised from the first, and to keep any idle would be a waste of opportunity. Concentration in a modern battle may, therefore, largely depend on mobility.

But a simultaneous and abrupt attack by artillery implies also great precision of movement, and precision means an unstrained effort. Batteries must, to use a sporting phrase, "go well within themselves," and respond readily to every call from him who guides them, turn to his hand as does the well-built vessel to her pilot, if they are to burst with any suddenness on the astonished foe. If it is by a great effort that batteries can reach a position they will either lose their chance by being too slow if they wait for one another, or will straggle up at intervals or even piecemeal by single guns, and in place of surprising their opponent may be themselves wiped out in detail.

When, therefore, the German General Staff hold up the mobility and concentration of their batteries at Loigny-Poupry to admiration, they remind us, though not intentionally, that these two features in the performance were complementary to one another, and that those six batteries of the 22nd Division could not have been rapidly and decisively carried out of one battle into another, had they not been held well in hand by a capable leader with a firm grasp of his command. Neither could the two Bavarian Horse Artillery

BATTLE OF LOIGNY-POUPRY

2ND DECEMBER 1870.



BATTLE OF LOIGNY-POUPRY.



Batteries have made the brilliant march they did and have joined themselves on to the other three to form that mass of guns to the south of Nonneville, had they not been possessed of the other quality to which concentration in the other instance gave its opportunity.

So that we ought to remember that although artillery is the arm which acts by fire alone, to reach complete efficiency it must study something more than questions of gunnery although they must be always its first care. Position and the getting into position is a factor in success, the value of which it would be difficult to exaggerate. Combination, and that, too, in its widest term—combination of its various component parts, and combination with the other arms—must form a no less important subject of attention.

CHAPTER V.

SUBSIDIARY RÔLES.

HAVING discussed the action of guns and cavalry when serious fighting in a more or less "set" manner has to be undertaken, we may in this chapter examine their behaviour in the various subsidiary rôles which they may be called upon to assume.

Almost, or perhaps quite, the most important of these is that one when squadrons, supported and stiffened by an addition of artillery, are sent to reconnoitre in front or on the flanks of an army. In such reconnaissance work decisive combats would never or very rarely indeed be undertaken, but nevertheless it is in them that guns may be especially useful, and such work, it is almost needless to say, forms a part of Horse Artillery and cavalry activity which more repays study and practice than any other. The sense of insecurity produced by the continual appearance of even a few hostile scouts, who elude pursuit, and hang as a constant menace and evil omen on the path of an army, is most demoralising. Unless cavalry on our side

can drive them away, and penetrate into the mystery which lies beyond them, we can but grope in the dark, the prey of surprises or of terrors that may be purely imaginary, but are none the less disturbing because of that.

French officers who were engaged in 1870 have given us most vivid and realistic pictures of the everlasting anxiety caused by the hated presence of the enemy's cavalry. Their line of march became the object of continual inspection from hostile scouts, who galloped round them keeping just beyond range, seeking to find the head of the columns, estimate their strength, and then withdraw to report to those who sent them.

After Woerth, even if the pursuit was not such an one as Napoleon would have launched, the utmost uneasiness was spread throughout the French ranks by the everlasting appearance, disappearance, and reappearance of the ubiquitous German trooper.

Men settling down to snatch a few hours' brief repose were suddenly ordered to march again for no other reason than that the dreaded horsemen had again come in sight.

The French were made to feel that they were within the meshes of a net, and yet no man on their side was found bold enough to try and break it.

Yet on the very first page of De Brack's "Light Cavalry Outposts," a work republished only a year before the Franco-German war, it is written, in answer to the question, "What is the object of Light Cavalry in a campaign?"

"By preceding our columns, feeling on the flanks, surrounding and covering all by a vigilant and fearless curtain; following the enemy step by step, tormenting him, engendering uneasiness, discovering his projects, wearing out his forces in detail, and compelling him in short to waste in defence that offensive power from which he would otherwise have been able to derive the greatest advantages."

That was the teaching of De Brack, and he, let us remember, was the pupil of Lasalle and Montbrun and Pajol, and handed down the traditions of the wars of the First Empire.

And the same service should be rendered by cavalry not only in advance of the main bodies, but on the battle-field when they are deployed for combat.

Then the cavalry should be posted on the wings, which it must strive to protect during the progress of the fighting. The army looks to it, then, for timely notice as to any turning movements which may be threatening it, and for information also as to what is occurring in the enemy's rear. And in order to explore

to any purpose, either then or when away in front, some exercise of force may be required, and to give that force the cavalry leader needs guns. A few shells well directed will even at a long range often reveal much. Their battering power against walls, houses, villages, bridges, would often be invaluable. A railway station or a train would be especially vulnerable to them, and without their aid a few riflemen might easily enough compel cavalry to keep at such a distance that they might be unable to gain the knowledge which was essential to the side they were working for. The presence of guns will make cavalry advance more confidently, and they will certainly, as we saw at Buzancy, materially hamper or debar an enemy's progress.

But cavalry and guns may often need to press forward with a sterner object in view than only to gain information. They may be sent on to make a reconnaissance in force, and then guns are quite indispensable.

As an instance of the employment of Horse Artillery in an advanced guard action partaking of the nature of such a reconnaissance in force, the most brilliant example in recent times that we can mention is the battle of Vionville, because the consequences of the bold intervention of these two arms on that occa-

sion were immense and far-reaching, and because the audacity with which they fastened on the immensely superior French forces is unrivalled in the annals of war.

Bazaine was endeavouring to make good his retreat westwards from Metz, while the Germans were sweeping round his flank in order to throw him back on that fortress. To hold the enemy fast till reinforcements might have time to come up was, therefore, of vital importance.

The 5th Cavalry Division, at nine o'clock on August 16, surprised the bivouacs of Forton's cavalry at Vionville, and at once the four Horse Artillery batteries that were with it began shelling the French camp from the Tronville heights.

A German officer has lately published a pamphlet, as a supplement to the well-known "*Militär-Wochenblatt*," dealing with the performances of this 5th Cavalry Division at the battle we are considering. This is how he describes the wonderful scene that the Germans saw when they first mounted the heights east of Tronville :—

"Just as our advanced patrols had informed us, a large French cavalry bivouac is found on the west of Vionville. Some squadrons are busy watering their horses, some are cooking, not a charger is saddled !

Truly a picture of the most peaceful, easy-going existence found haply amid the turmoil of war, and this, too, in the closest and most dangerous proximity to 4000 hostile troopers only waiting impatiently for the order to attack !

“ In a moment Schirmer's battery unlimbers on the height which commands the enemy's position, and suddenly pours down upon it a perfectly unexpected and most withering fire, which falls especially on the Brigade Murat and the squadrons which are busy watering. Major Körber's battery quickly joins the one already in action, and the Hussar regiments extend themselves on either side to cover the flanks of the guns. The very first shells which fall screaming and crashing into the camp throw everything into a state of the wildest panic, and the French cavalry in a few moments fall into a confusion which is simply indescribable.”

The French in fact had made no use of their cavalry to patrol or reconnoitre towards the enemy ; the German shells startled them at breakfast, as I have already shown they disturbed their dinners at Beaumont, and they were absolutely unprepared for this attack. This is what the Official Account says : “ At the very first round of shell the hostile cavalry fell into wild confusion. A French squadron, indeed, attempted

to advance to the north of the village of Vionville, and a battery to the north-west of it, but both were unable to hold their ground against the fire of the Prussian guns ; they speedily followed the rest of the cavalry, which abandoned the camp in the greatest confusion, and disappeared in an easterly direction." Then the German Horse Artillery galloped further ahead and began cannonading the infantry camp about Rezonville, which the flying horsemen also threw into great confusion. The Horse Artillery, too, of the 6th Cavalry Division now pressed forward and came into action alongside their comrades in front, their fire being also most demoralising.

Now here we have a very excellent example of the manner in which mobility, which is the distinguishing feature of a cavalry and Horse Artillery force, may be turned to account ; and remember that the cavalry, although they might have startled the French momentarily, could have effected nothing substantial without the fire with which the guns endowed them. A few dismounted troopers might have checked them till the others could get under arms, and the infantry would soon have advanced and driven them away.

As it was, this latter did rally in a short time and advanced in superior numbers against the batteries. The position of the guns was, in consequence, soon most

critical, but Von Alvensleben, who commanded the 3rd Corps, fully appreciated the necessity for fastening his grip immovably on the French flank, and battery after battery was therefore hurried on to the front, and in course of time a long line of artillery was built up which defied all the efforts of the Frenchmen, and formed a solid framework on which the infantry divisions deployed by degrees.

I cannot go into the details of the great fight, which was a very glorious one for the artillery, but its opening phases are especially valuable from our point of view, and it may be confidently asserted that had the German cavalry and Horse Artillery not thrown themselves with such decision on the foe immediately he was found, Bazaine's army, whatever might have been its ultimate fate, would never have been defeated at Gravelotte, or surrendered in Metz.

And now I may say a word as to the attack of guns by cavalry.

I admit frankly that squadrons can often charge batteries in action successfully. There are plenty of such instances, and plenty too showing a different result for the matter of that. But deliberately to gallop at guns when they see you coming is not, I believe, the best way to set to work. The game is rarely then worth the candle. You will certainly lose

heavily, and unless you are supported strongly, even if you get among the guns, you will not be able to do sufficient harm to compensate for the crippled state your squadrons will be in.

Cavalry too, even when they get amongst guns, are often comparatively helpless. Although a very brilliant feat, the permanent capture of the eighteen guns at Tobitschau remains almost, if not quite, an unique experience. Von Bredow could carry off or disable none of the French pieces through which he rode at Vionville, and neither could our light cavalry do so at Balaclava. Horses not accustomed to the sight shy away from guns that have just been fired, and it is often not easy to make them go up close to them. I have seen it stated that in 1849 the drivers of a Prussian battery drove off the Danish Dragoons who had got into the battery with their whips! *

In an interesting account too of a "Prussian gunner's adventure in 1815" published some four years ago, and from which I gave extracts in an article I wrote some years ago for the *United Service Magazine*, Lieutenant Von Reuter in describing his grandfather's exploits gives a curious example of how little may disconcert cavalry amongst guns.

At the battle of Ligny the flank of the Prussian

* Militär-Wochenblatt 61 of 1866.

battle in question was surprised and taken in rear by fifty French horsemen under a staff officer. "As these rushed upon us the officer shouted to me in German" (says Von Reuter's grandfather), "Surrender, gunners, for you are all prisoners!" with these words he charged down with his men on the flank gun on my left, and dealt a vicious cut at my wheel driver, Borchardt, who dodged it, however, by flinging himself over on his dead horse. The blow was delivered with such goodwill that the sabre cut deep into the saddle, and stuck there fast. Gunner Sieberg however, availing himself of the chance the momentary delay afforded, snatched up the handspike of one of the 12-pounders, and with the words "I'll soon show him how to take prisoners," dealt the officer such a blow on his bearskin that he rolled with a broken skull from the back of his grey charger, which galloped away into the line of skirmishers in our front. The fifty horsemen, unable to control their horses, which bounded after their companion, followed his lead in a moment, rode over the prostrate marksmen, and carried the utmost confusion into the enemy's ranks. I seized the opportunity to limber up all my guns except the unfortunate one on my left, and to retire on two of our cavalry regiments, etc., etc."

If in extended order on a very wide front, and all

the men in the ranks ride home like heroes, and if there is no escort to the artillery, I daresay some men will always get into the batteries ; but escorts ought always to be with guns at all open to a rush, and I cannot help thinking that men will not keep extended if their flanks are threatened even by comparatively weak bodies. Moreover to turn enough cavalry to do real mischief on to the guns is to commit a tactical error, for it is a first principle in war that you cannot be too strong at the decisive point, and that point in a cavalry combat is where the main bodies meet. If you win there you will eventually have the guns too. If you are beaten there you will have to relinquish the batteries even if you capture them.

But favoured by ground, especially if artillery is made to co-operate with it, cavalry can take artillery or infantry by surprise, and can then accomplish much at but little expense, just as those French regiments did at Albuera, or Von Bredow did at Vionville, and I will only sum up the latter story by saying that on that day with but six squadrons that brilliant cavalry leader succeeded in wrecking six batteries and four battalions, and in the actual attack on them lost comparatively few of his men, for it was after they had passed their immediate objective, and had got out of hand, that they were so cut up. But the aim of

the French batteries was disturbed by the German artillery near Vionville, which as Bredow advanced poured a sudden and rapid storm of shell on the guns he was about to charge.

The story of how Von Bredow was called upon to assail the French cavalry and infantry in order to gain breathing time for the hard-pressed Germans is most dramatic, and there is nothing finer than the spirit displayed by his men. Von Alvensleben's order concluded with the words, "Vielleicht hängt das Schicksal der Schlacht von Ihrer Attacke ab." The fate of the day depended perhaps on him! Two squadrons were sent towards the Tronville copses to cover his left front. It was thought that French infantry were in them; if so, the horsemen would probably be decimated ere they moved on to the attack; therefore, Von Bredow made his squadrons draw lots for the murderous station, and with serious, pitiful faces, we are told, the remainder saw their doomed comrades ride away — one squadron of cuirassiers and one of lancers.

And yet after all it was Lehmann's detachment that was in the copses, and those two squadrons were the ones that suffered least of all, and formed the nucleus round which eventually the others were reformed.

Without a word and very calm, "es war bewun-

dernswerth," says Von Kreitschmann in the regimental history, "wie der General, ohne ein Wort, die Brigade in Bewegung setzte," Von Bredow set the remaining six squadrons, about 800 men, in motion, and then Major Körber, of whose achievements in the morning we have already heard, in the most skilful manner prepared the way for him. So well was the situation turned to account, that a whole salvo was sent into the French guns just to one side of Bredow's column as it moved onward down the dip, and so effectually did this sudden outburst of artillery activity absorb the attention of the French gunners, that although Von Bredow had to cross a stretch of 1500 metres ere he reached them, he succeeded in completely taking them by surprise, and lost hardly at all in the advance.

Only two guns indeed were turned upon them at all, and these fired over their heads. But the squadrons rushing wildly on had ignored infantry behind them in their left rear, a gallop for 3000 metres tired their horses too, and finally they were assailed by fresh French cavalry both in front and flank.

The 7th Cuirassiers (Seydlitz's regiment) lost 7 officers, 198 men, and 261 horses; the 16th Uhlans, 9 officers, 222 men, and 224 horses. An appalling loss; but the sacrifice was justified, and the day was saved.

Then there is the example of Tobitschau, and every cavalry soldier should remember it. It was an action, as all my military readers will know, fought on the 15th of July, 1866, when the Austrians were in retreat from Olmütz, and it gives us a very valuable example of cavalry attacking artillery, and there too guns co-operated with the squadrons. We find a lesson even in the terse curt phrases of the official account. When that same Von Bredow, of whom we have just been speaking, stole away suddenly to his left, to make a dash at the Austrian batteries, which he had noted were exposed without an escort, the two Horse Artillery batteries with the cavalry division to which he belonged, were turned swiftly on to the hostile guns, and occupied their attention in front while he was making for their flank.

There is a whole lecture, I think, in one little word in the paragraphs that speak of it, that little word is "guessing." "*Guessing* his motive, General Hartman planted the two Horse Artillery batteries on the bank of the Blatta southward of Klopotowitz from whence they could engage the enemy, draw his attention from the Cuirassiers, and assist their attack."

Bredow only lost 10 privates and 6 horses wounded and 12 horses killed in this enterprise, and captured 18 guns, 15 limbers, 7 ammunition waggons, 2 officers

and 168 gunners, 230 men of other corps, and 157 horses. Truly a noble prize for 3 squadrons! and gained, let us remember, by guns being made to co-operate sympathetically with the cavalry.

It is to make feints on, or to surprise guns, however, that our cavalry should seek. No doubt if your squadrons are suffering under artillery fire, a feint with a portion of your force of cavalry may draw away some of the annoying shells. I believe that in Germany assaults on lines of guns by large forces of cavalry are regarded as feasible enterprises, and are practised at manœuvres. The first lines widely extended, the second less widely, there also being échelons on the flanks, and reserves behind. Very likely such tactics may occasionally be successful, and may be considered practical by a power with such forces of cavalry at its command as has Germany. But in all our campaigns, ancient and modern, we have suffered from a want of cavalry. With us squadrons are held too valuable to be squandered in so prodigal a fashion, and I do not believe that in the future any British General will feel justified in launching his precious horsemen on so costly and hazardous an undertaking. It will be better policy for us to set about our task in a less rough-and-ready way, and to endeavour to make skill in manœuvring replace numbers.

Having thus considered the action of Horse Artillery and cavalry previous to and during a battle, let us turn to examine a *rôle* which perhaps offers greater opportunity than any other for the exhibition of the special characteristics of these two arms. It is during the retreat after an army has met with grave disaster, as at Königgrätz, or during the retrograde movement before superior forces when it seeks to escape to some securer position in rear, as after Quatre Bras, that a force has to rely for its safety on the efficiency of its cavalry and Horse Artillery, and it is on these occasions that their assistance is simply invaluable. The Prince de Ligne once said that he could not conceive how an army ever succeeded in retreating. The explanation is that it could never make anything like an orderly retreat before an enterprising foe were its movement not covered with skill and self-sacrifice by the two arms we are dealing with here. There is no finer example of the two arms working together than the retreat, on the 17th of June, 1815, from Quatre Bras to the Waterloo position. Wellington had to draw off far inferior forces in the face of Napoleon himself at the head of an army flushed with the victory of the previous day over the Prussians, and looking forward with confident anticipation to a coming triumph over the English, separated as they thought they were

from their allies. A series of cavalry and horse artillery engagements was fought that day all along the Charleroi road, and we read in Siborne's interesting letters at the end of Lord Anglesey's account, "Thus ended the prettiest field day of cavalry and horse artillery I ever saw in my life."

This is a typical example of rear guard actions, for in these the object is rather to delay the enemy than enter into a serious engagement with him, and Horse Artillery which can move rapidly to successive positions in the rear, fire a few rounds, compel the enemy to deploy, then limber up and gallop off again, is specially suited to such. It should thus form a continual menace to the enemy, most irritating, most impalpable, never allowing him the chance of a direct blow at it, but ever avoiding his onset and slipping from his grasp.

Occasionally, however, when it is necessary to avert total ruin, guns must be sacrificed, and, forgetting their mobility, stand rooted across the path of their foe, blocking his way without thought of yielding. The French in 1870 did not make use of their cavalry and Horse Artillery either to cover the advance or the retreat; for this reason, and from the nature of the German victories, which we shall deal with later on, we must go back to the war of 1866 to find cavalry

and Horse Artillery sacrificing themselves to secure the safety of the other arms.

One could not desire a better example of such devoted conduct on the part of cavalry and artillery than the manner in which the Austrian cavalry and artillery staved off complete ruin from their comrades after the great battle of Königgrätz. It is true that these guns which so highly distinguished themselves were not all belonging to Horse Artillery ; but horse and field artillery alike covered the retreat in the manner in which we hope usually to see Horse Artillery acting, and nobly seconded the efforts of the cavalry as though they were all linked to them in the orthodox way. Especially did eight batteries of the Reserve Artillery distinguish themselves when they were brought into action to oppose the advance of the 2nd Army under the Crown Prince, and subsequently when they took successive positions to the rear to hold back the triumphant flood of Prussian success. But for the unflinching front shown by these guns up to the last moment the disaster would have been immeasurably greater. Yet, covered by their fire and the brave Austrian cavalry, Benedek succeeded in drawing off his troops, still in formation, across the Elbe, and nothing like a rout supervened on the defeat. These eight batteries lost 9 officers, 139 men,

259 horses, and 32 guns. Let it not, however, be imagined that the loss of guns was a dishonour to them. That idea, I hope, has for ever been exploded, and it may form their proudest boast that they sacrificed their guns to save the army.

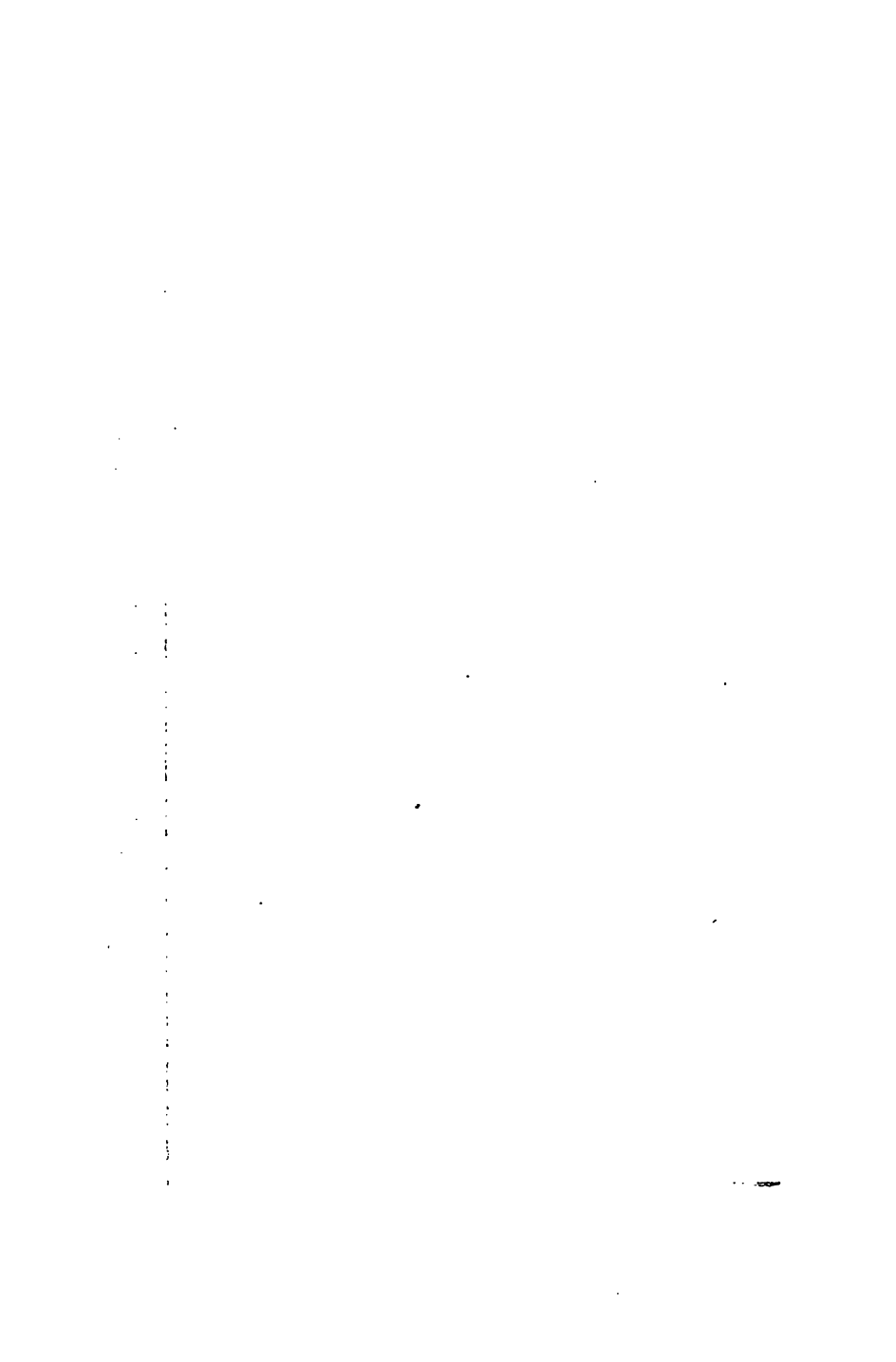
And on this occasion the action of the Austrian cavalry masses was also worthy of the highest praise. They advanced boldly against the squadrons which the victors sent out in pursuit of their disorganised infantry, and it was due to them that the shattered battalions were able to escape. Prince Kraft, who was an eye-witness of their deeds, says that had the Austrian cavalry masses not been employed as they were, or had they been absent, the whole Austrian army had been lost, and that had the Prussian horsemen, on the other hand, not been on the field to oppose the hostile squadrons, the result of the day might have been very different, and a victory been converted into a defeat.

Before leaving this part of the subject I cannot forbear to notice how, after the terrible reverse we experienced at Maiwand, the heaviest blow our prestige has received in the East since the Afghan War of 1841-42,* four guns of our Horse Artillery were

* It is notable that at, and during the disastrous retreat from Cabul in 1841-42, it was also a Horse Artillery battery,



SAVING THE GUNS AT MAIWAND.
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mainly instrumental in enabling what was left of our shattered and demoralised force to escape. Their leader was justly rewarded ; everyone spoke of the splendid behaviour of the battery, and some of the men belonging to it were decorated with the Victoria Cross. But what was the reward of the gallant battery itself of which we were all so proud ? Like the other fine battery I spoke of in Egypt, and like " D " troop * which fought so well at Albuera and

which pre-eminently distinguished itself. It was of the conduct of the 1st troop 1st Brigade Bengal Horse Artillery that Akbar Khan the Afghan leader said:—" Had all the British troops fought like the ' Redmen ' " (an allusion to the flowing red manes then worn on the helmets of the Bengal Horse Artillery), " they would never have been driven from Cabul."

* The case of " D " troop is a particularly hard one. It was formed in November, 1793, and was therefore one of the oldest of our troops. It took part with much distinction in the battles of Albuera, Vittoria, Orthes, Toulouse, and Waterloo ; and in the actions of Usagre, Fuentes Guinaldo, Aldea-de-Ponte, Ribera, San Munos, Ford of the Yeltes, Salamanca (May 22, 1813), Pyrenees, Aire, and capture of Paris in 1815. It was besides engaged in many other affairs during the Peninsular War, being always with advanced or rear guards. At Waterloo it suffered very heavily. Its commanding officer, Major Beane, seven men, and thirty-six horses were killed ; and its second Captain, W. Webber, and a subaltern, W. Cromie, the latter mortally so, were wounded amongst many others.

Nevertheless, when after the war was over, our army was reduced in 1816, it was selected by the Duke of Wellington for reduction, although it had seen more service than any other of our troops, except " A " and " I."

It has been said that the reason of this was that it was at

in the Peninsula generally and at Waterloo, it was broken up. And yet we are taught that to foster *esprit de corps* and increase the self-respect of the soldier has ever been the first study of great leaders of men.

Indeed, this destruction of noble traditions has gone on so uniformly in the artillery that I think it is enormously to the credit of the regiment to which I have the honour to belong that it still preserves its fame untarnished.

I once stood with an officer who has now, alas ! left us, in the old dining-hall at Woolwich. One of the mottoes on the wall emblazoned in old English letters caught our eyes. He read it. "Unlasting yet unresting work." "Surely," I said, "you are making a mistake, it is *unhasting*." "Is it?" he said. "I have remembered it as unlasting all my life, and it seemed such a

that time commanded by Captain Mercer, who when in command of "G" troop at Waterloo, had incurred the Duke's displeasure because he did not retire his gunners into the infantry squares alongside him during the great cavalry attacks on our right centre, according to instructions. These squares were composed of Brunswick troops, and Mercer contended that had he not disregarded orders and set them a good example by standing to his guns they would have broken. It was a serious thing to incur the Great Duke's wrath, and not only did Mercer lose a brevet on this occasion, but the troop he commanded was punished also. It may have been hard on Mercer, but it was doubly so, and, indeed, absolutely unjust, to visit the fault of an individual on a fine body of men who had done much distinguished service.

good motto for a gunner, for it told me that I must do my best, and work hard, and then my battery perhaps would be disbanded." He did not speak cynically. The grey-haired veteran, one of the best officers we ever possessed, had bowed his head all his life to the inevitable, and had never slackened one atom of his zeal or disregarded his duty for one moment, although he knew, and probably had experienced, the reward which has not infrequently followed such efforts in our regiment. But his remark filled me with greater admiration for him than ever, and I know I may say with confidence that we have many more like him, whose spirit and energy remain unbroken, even though the batteries they served with and were proud of may have disappeared.

There remains for me now to discuss the duties which fall to cavalry and Horse Artillery during the pursuit of a beaten enemy. A mere victory will effect comparatively little, if the vanquished are not so harassed and demoralised by the victors following rapidly upon them that they shall have no time, as it were, to recover breath. Napoleon blamed his cavalry, after Wagram, for their want of enterprise in this respect, and exclaimed, "This day will be without results!" since neither guns nor prisoners fell into his hands to give tangible evidence of his success. Sala-

manca, similarly, might have been ten times more telling a triumph than it was had a pursuit, swift and inexorable, been launched after the French, or had the Spaniards not broken their pledges with regard to the Castle of Alba. Vittoria, Jena, and Waterloo are examples, on the other hand, of victories converted into routs, although at Waterloo the cavalry might have done more than they did.

Lord Lake too, who had learnt his profession in the wars of the Great Frederick while still a boy, carried through a splendid enterprise when on the celebrated march in chase of Holkar in 1804, with a force composed of six regiments of cavalry and a battalion of native infantry, accompanied by Captain Brown's troop of the Bengal Horse Artillery. Lake, on reaching Aliganj on the morning of November 16, determined to catch up his enemy before he should have an opportunity of destroying Fatehgarh, and accordingly the Horse Artillery and cavalry were ordered to move on again in the evening. In the early hours of the following day Holkar was alarmed by a gun. He was told and believed that it was the morning gun at Fatehgarh, and the more readily so that he knew his scouts had left Lake late in the previous afternoon quite thirty miles away. But with the first grey dawn of morning the noise of cannon

and showers of grape shot startled his men, who were lying in their blankets asleep, and they awoke to find our dragoons amongst them with the 8th Royal



MURAT.

Irish leading the van. The discomfited host suffered heavily and fled, and was pursued in different directions for ten miles more

Lake accomplished 252 miles in 13 successive days, while in the last dash forward his men covered 54 miles in 30 hours. Denison* puts the figures differently, and says that 350 miles were accomplished in about 15 days ; but I think he has over-estimated distances.

Instances of ideal pursuits are however rare : amongst others that conducted by Murat after Jena is the most striking of all, and may serve as a model for all time to soldiers. Such was the vigour and pertinacity of that leader, ably seconded by Grouchy and Lasalle, that the whole Prussian military system was absolutely destroyed. Cannons were captured by hundreds, thousands of prisoners were cut off, and the fortress of Stettin, with 160 guns and a garrison of 6000 men, was captured by Lasalle without a shot being fired.

It is curious how all the best examples, too, are to be found amongst the annals of the early wars of the century.

This is variously to be accounted for. Darkness closing in at the end of a hard-fought day often prevents effective pursuit, and the victors are often too weary and sore for it.

Von Moltke had told us how difficult it often is to pursue, and of how stern a fibre a general must be

* "History of Cavalry."

made who can brace himself to subject his men to the fatigue and hardship usually involved, and that too when they may have just earned a much disputed victory.

It is at any rate certain that only the very best and most energetic generals of history have understood how to follow up a beaten foe.

Our force of cavalry was too weak to enable us to harry our foes after the Alma, or rather it was supposed to be too weak, for it is useless to deny that a glorious opportunity was then thrown away. The circumstances which surround the greatest victories of 1870 were so remarkable that they rendered pursuit unnecessary. There was, in fact, nothing left to chase, for the entire French army was surrounded, hemmed in, or captured in these triumphs. After Woerth, however, the cavalry on the German side was not sufficiently boldly handled, and touch with MacMahon was lost, owing to its not having been thrown fearlessly to the front upon his line of retreat. To quote all the examples which Military History would yield of successful pursuits by cavalry and guns would occupy a little volume of itself, so I will now content myself with touching on the principles which should guide us in the future. But let it not be supposed from anything that may have been said by me, that there will

not be ample scope and opportunity for the mobile arms in future campaigns to shine in this most essential rôle.

Masses of cavalry should be concentrated on the line of retreat, where the main body of the enemy is most likely to be met with. As many batteries of Horse Artillery should be sent on with the cavalry as possible, for otherwise a few riflemen or guns may hold the squadrons back by their fire, and it will be advantageous for them not to fight on foot, for every sabre will be needed in the work before them. A German authority,* Captain Cardinal von Widdern, in his "*Handbuch für Truppenführung und Befehlsabfassung*," recommends that some companies of infantry, well supplied with cartridges, should therefore be sent with them, carried on carriages. The Germans are, as the majority of my readers will know, no believers in mounted infantry as we organise it, although they clearly recognise the value of a mobile rifleman ; otherwise, no doubt, we should have seen mounted infantry proper referred to. The battalion of mounted infantry with our cavalry division will come in most opportunely here, and, we trust, may find a sphere of usefulness before it some day on such an occasion as a British victory. Strong patrols, formed by regiments or squadrons, as circumstances may dictate, would

* Quoted in Trench's "*Cavalry in Modern War*."

scour the other roads, and smaller detachments would penetrate wherever they could make their way. In all cases the additions of some guns will be extremely useful, for the mere appearance of artillery always produces an immense effect on an enemy in full retreat. The pictures that historians and correspondents have often painted of the disorganised crowds of soldiers jostling one another like sheep in the roadway, the long, slowly-moving ammunition and supply columns blocking up the path, all describe a tempting target to the pursuing batteries, and a few shells may be enough to cause whole miles of vehicles to be abandoned. The defensive power which fire lends to cavalry also gives it greater audacity, and likewise enables it, as we have said, to brush aside resistance which might otherwise prove serious ; and, finally, the sound of the guns may aid their side, for, in the event of the enemy being able to assemble in sufficient numbers to bring on an engagement, it will call reinforcements in the direction where they are needed. The manner in which our cavalry took up the pursuit after Tel-el-Kebir, although rather in the nature of a cavalry raid, is a splendid example from the most modern times, but the undue weight of their equipment prevented the Horse Artillery batteries from accompanying the horsemen the following day from

Belbeis to Cairo, as Sir Drury Lowe was most anxious they should have done, for, in the event of any resistance being met with in that brilliant and audacious *coup*, their presence would have been most valuable.

The mention of this latter feat, for, as we have said, it was more in the nature of a raid than a pursuit, leads us to the last *rôle* which guns and cavalry may assume in common. I mean in those raids which were a famous feature of the American war, and have ever supplied a field for the energy and capacity of a genuine leader of cavalry. Such rapid enterprises may be undertaken for the sake of gaining information, cutting an enemy's communications, or capturing supplies and stores.

It is an old world tale now, but there is something peculiarly audacious about that partisan raid of General Haddick on Berlin on October 17, 1857. He took with him only 4000 men and 4 guns; but rumour soon exaggerated the strength of his force, and by concealing his movements as much as possible, he did not allow his enemies to see much of his columns. Rapid marching enabled him to make the most of a good start, and he attacked the Silesian gate of Berlin with so much effrontery that the commandant, although he had a force capable of defeating the Austrians, hurriedly retreated to Spandau with the

royal family, and left the capital to its fate. Haddick's terms were finally arranged at £27,000 sterling, and after a halt of only twelve hours, that astute leader made off again, skilfully evading all attempts to cut him off, and finally effecting a secure retreat behind the river Spree.

No cavalry have indeed ever been more efficient in reconnoitring and advanced post work than the light troops which covered the Austrian armies during the Seven Years' War. The Pandours, Croats, and Hungarians often mystified and worried Frederick, and he was sometimes much perplexed and exasperated owing to them.

The attack and capture of a Prussian convoy on its march from Troppau to Olmutz on June 30, 1758, is another instance of their efficiency. Loudon and Ziskowitz were on that occasion more than a match for even Ziethen, and obliged him to draw off his force, leaving 250 waggons as a spoil to the victors. And the cordon of outposts placed by Loudon to prevent information reaching the king did its work so well, that he only heard of the loss he had sustained the day after it had occurred.

We find another excellent example of such an operation in our own times in the reconnaissance or raid effected by General Gourko across the Balkans in

July, 1877, when in eight days he carried dismay into the heart of Turkey, destroyed parts of the railroad and telegraph on the principal lines, and gained a great deal of information as to the Turkish movements. On that occasion he had a mixed force with him, but there can be little doubt that had he had mounted infantry at his disposal, as the leader of one of our cavalry divisions will in the future have, he would have availed himself of their services in place of that of their slower-moving brethren. In such rapid operations there is clearly a wide field too for the co-operation of guns, that are possessed of due mobility, and cavalry.

During the American war of Secession such raids were freely undertaken, and the exploits of Stuart, Forrest, and Morgan are justly celebrated instances. But these leaders conducted their operations rather after the manner of irregular than regular warfare. Their principal object was to elude observation, not to fight, and, therefore, extreme mobility was desirable. Consequently guns played only a minor rôle, and there was a latterly a tendency to dispense with their services altogether.

A salient instance of this nature of fighting may be found in General J. E. Stuart's raid in front of Richmond in 1862, when with 1200 men and two

guns he unexpectedly burst into the Federal lines, and gained a quantity of information that was of the greatest value in the subsequent operations. With impudent audacity he swept completely round the rear of his opponents, cut their communications, burnt and destroyed a vast amount of stores and property of various description. He returned in forty-eight hours with the loss of only one man, having captured 165 prisoners and 200 horses and mules. The dashing cavalry leader will probably again in the future thus turn the mobility of his arm to account, and the value of a force capable both of fire effect and rapidity of movement will again be exemplified.

With this last reference to a sphere in which the usefulness of a combination of cavalry and artillery will certainly find employment I must close my remarks. I have only taken opportunity to touch very briefly on the various aspects of the tactics we have been discussing, but I trust I may have said enough to show that in the future as much as in the past, or perhaps even more, will be expected from the arms of the Service we have dealt with. On the battlefield itself, we can hardly hope to see cavalry, as in the days of Ziethen and Seydlitz, deciding battles by its action, although we may note in passing that the most modern battle, that of Placilla, in the Chilian

war of a few years ago, was won in this way; but before great forces are locked in a decisive struggle, there must be many opportunities for the arm still. When Frederick said that for every day of fighting there were twenty of marching, he stated a truth that is as real now as it was during the Seven Years' War. Therefore cavalry and Horse Artillery should be regarded and welded together as one and the same unit, for the arm that can move and strike also can never be at a discount, and the side well served by it will reap far-reaching benefits and advantages that will materially influence the progress of its operations.

CHAPTER VI.

SOME REMARKS AS TO THE INFLUENCE OF QUICK-FIRING, MACHINE GUNS, AND MOUNTED INFANTRY.

IT has been suggested to me that I should add to what I have already said some words as to how the improvements recently effected in quick-firing and machine guns may influence the tactics of artillery and cavalry.

And, indeed, since the very name of a Maxim has of late become almost a synonym for destruction, it may be well to drop a special hint or two with reference to the influence of these new arms on tactics in general, and more particularly on those of artillery. In war we shall largely rely on men who now are citizens first and soldiers afterwards, and some of them may well have caught the contagion of the enthusiasm which just at present has dangerously excited popular imagination, and in certain quarters there is a kind of vague impression afloat, and such dreams have often before deluded men, that victory may be made certain through cunning surprises as regards armament,

It is, however, a pernicious, perilous, and demoralising creed which teaches men that there is any substitute for skill and courage in warfare. They should go into battle determined to win by their own resolution and bravery, relying on their knowledge of the weapons they bear, on the goodness of their cause, on what discipline has taught them, on their confidence in the general at their head. On everything in fact which goes to make a good soldier, or an efficient army; on anything rather than on the merits of a mechanical contrivance which is to make the road to victory an easy one. Therefore, let it not be forgotten that admirable as some inventions may be in certain situations, we must not pin our faith slavishly upon them, and that the anticipations formed in peace time on inadequate data are often falsified by the test of war on a large scale.

A modern cavalry division, however, will not only be accompanied by machine guns, but also comprises a battalion of mounted infantry, and, therefore, I have thought it as well to add something with regard to the employment of that adjunct.

For the benefit of any non-professional readers whom I may attract I should perhaps start by a further preface and explanation, namely, that the term "quick-firing" is used to denote a gun which is

“fed” by hand, and is rendered capable of more rapid discharge than in the case of an ordinary field-piece because its ammunition is “fixed.” That is to say the projectile and powder are done up together in one cartridge, with a cap at the base, as is the ammunition of a rifle. The process of loading is therefore greatly expedited, and, if there be no recoil, rapidity in laying is also gained. In the case of a machine gun, on the other hand, the loading and firing takes place more or less automatically, and in the Maxim systems entirely so. Quick-firing guns, moreover, can be constructed to fire very heavy projectiles, and they are often utilised as shell guns, while the machine gun in general use for land service is of rifle calibre only.

It will be obvious that to derive full benefit from a quick-firing system there must be complete absence of recoil. Otherwise the man laying would be knocked over by the piece after its discharge if he did not get out of its path, while, if he moved away between each round, rapidity of fire would naturally suffer very considerably.

In the navy guns of this kind can be fixed on immovable stands on deck, and a man can keep his eye to the sights and fire the piece almost as he might a rifle. It is for this reason that quick-firers are so

valuable on board ship, and that they can be turned to such good account in warding off an attack by torpedo-boats. But even on board ship the tendency to recoil thus violently arrested strains and shakes the structure of the vessel considerably.

That a quick-firing gun might be a suitable armament for Horse Artillery batteries is by no means denied, and many officers of the arm look for important advantages to be derived from the use of fixed ammunition. It will not, however, be always desirable for field service to unite projectile and powder charge in one metal case, and it will probably be found more convenient that they be separate as they are now. To enter into a full consideration of the whole question would involve us in a highly technical discussion, out of place in a work of this kind, but it may be stated briefly that the question of recoil lies at the root of all objections to the innovations suggested. If by any means a manufacturer can produce a wheeled-carriage, which will form a secure platform for the gun when it is fired, which can be rapidly brought into action, and limbered up again, and which yet will not recoil between the rounds discharged from it, he will benefit Horse Artillery batteries enormously, and a squadron will be received with the same storm of shells which pelts a torpedo-

boat rushing to assail a man-of-war. The production of such a carriage has not as yet, however, been accomplished, and we may, therefore, leave the question of a re-armament of Horse Artillery at rest until a most difficult problem is solved.

A gun which recoils cannot in fact be termed a "quick-firer" at all. It may be a quick-loader, but the advantage then gained is only small, because it is the running up of a field gun and the relaying of it that consumes time and makes fire slow. Moreover, the great length of a projectile and cartridge fixed together renders such ammunition as quick-firers now use unsuitable for packing in limber boxes, and the advantages gained in the direction of the case being gas-tight, and the better preservation of ammunition, are over-balanced by this inconvenience and by the increased weight in the shape of metal cartridge-cases which would have to be carried about.

Experiments are, however, being carried out, I believe, in the hope of finding a field gun-carriage which will possess the advantages and none of the defects which I have referred to, and then we may see a weapon introduced which will materially aid our Horse Artillery batteries in cavalry action. Up to the present, however, although a carriage with a spade arrangement on the trail has been made which will not run

back, it shows the effect of recoil in another way, that is to say, by a "jump," brought about by the tendency of the gun-carriage when checked in its backward progress to rotate round the point of the trail, which most inimically affects the accuracy of the shooting. To do away with recoil in field-carriages, and at the same time produce no "jump," is at present one of the toughest problems which gun designers have to face.

It may, however, be pointed out that just now opinion on the Continent is drifting away from the idea of arming field artillery with light pieces capable of a great rapidity of discharge, and that the field gun of the future, so far as we can read the signs of the times, will not belong to this class. If it is to be a quick-firer it must be one of a calibre capable of firing a shell as heavy as our present one.

The position of the machine gun as regards cavalry is, perhaps, less clearly understood. There is no doubt that the extreme mobility and efficiency of the Maxim machine gun, which with 4000 rounds of ammunition weighs only $11\frac{1}{2}$ cwt. in draught, has a great fascination for many soldiers, and I have heard cavalry officers of experience, who have probably witnessed with disgust our unwieldy 12-pounders endeavouring to keep pace with their squadrons, assert

that a battery of machine guns would supply all the support which cavalry need from fire.

I do not think this idea is shared by many, and it appears to be based on two cardinal misconceptions.

We must remember that the occasions on which Horse Artillery is perhaps most valuable, if not absolutely indispensable, to cavalry is during reconnaissance work, and that on certain occasions in warfare there is no scout or patrol more effectual than a few rounds of shell fire. From a perfectly safe distance such projectiles can force the enemy to disclose something more of his strength than we could otherwise discover ; they can by commanding the outlet of a defile or village street, or the bend of a road, compel him to deploy, and perhaps bring guns into action which he would prefer to keep concealed ; they can deny roads and beaten paths to him, and delay his progress while he is picking his way in extended order across country ; while a shell or two thrown into it will soon settle the question as to whether a hamlet or wood be occupied or not. It is not indeed until cavalry embark in this work ahead of armies that the immense assistance which far ranging guns may prove is realised, and that their support is fully appreciated.

Moreover, the destructive power of a comparatively

heavy shell asserts itself unmistakably when villages or buildings have to be assailed, and squadrons could hardly hope to carry such posts without the aid of shell fire.

The second difficulty which those who have not had much experience of Field Artillery work are apt to overlook is the difficulty there is in accurately determining the range by any other means than by trial shots. And, lest it should be supposed that I wish to impugn either the skill of an expert or the efficiency of a machine, I may add, that when we seek to make a shot fall on a certain spot, it is not enough to know how far lineally that spot is distant from us (because it may be quite likely that our range-finder will tell us that with correctness), but how much we must elevate or depress the piece to gain our object.

The reason of this is the state of the atmosphere, the elevation above the sea-level at which we stand, the incorrect weighing of the powder charge, the quality of the ammunition, or the time it has been in store, are all factors in the problem which assert their influence. A gun laid absolutely correctly, with precisely the same elevation, and firing exactly the same nature of ammunition, will very likely not throw its projectile as far on one day as on another; and, indeed, until we try an experiment we cannot be sure what eleva-

tion we are to use in order to send our projectile a given distance. The range-finder usually acts as a rough guide only, and it is the burst of a shell which shows us our error, and assists us in our corrections, until we arrived at a correct result.

This unknown quantity, which at first hampers our efforts, is recognised amongst artillerymen as "the error of the day."

Now, with machine guns we are unable to determine how much that error is, because at anything but a very short range indeed, at not more in fact, than about 600 yards, we cannot see the result of our shots upon the ground unless we are firing on a sandy waste, or over water. While, therefore, we are firing away with great rapidity, a huge waste of ammunition only may be taking place. It is in this direction that the weakness of a machine gun lies, and that is why we are prevented from getting the most out of it at ranges at which, if we could be sure of correctly gauging the error of our trial shots, it would undoubtedly be capable of destructive effect.

Some years ago there used to be considerable controversy as to the calibre which was most suitable for these weapons. So many varieties, each enthusiastically supported, have appeared from time to time, that it would need a special book on the subject to

deal with all of them. It is the Automatic Maxim gun of rifle calibre, however, which has fascinated popular imagination most, and, undoubtedly, it is the most valuable of all the various inventions which have from time to time attempted to substitute mechanical contrivances for a given number of rifles carried by soldiers. It is, therefore, of this weapon that I will chiefly speak. It is probably as nearly perfect as such a mechanical contrivance can be, it has undoubtedly proved itself a most valuable adjunct to the armament of our army, and it has, besides gaining a verdict of popular acclamation, received official and scientific approbation in a higher degree than any of its competitors.

The novelty and speciality of the system consists in this, that the force of recoil, which is such a source of trouble in field artillery matters, and has militated against the efficiency of other patterns of machine guns, is utilised and turned to good account for the eminently practical purpose of loading and firing the piece. The wasteful and destructive violence of a great force is in it chained up and compelled to work for our benefit, just as is the power of steam in a boiler, or that of the rushing torrent which is made to turn a mill-wheel. The mechanism becomes therefore entirely automatic, and a dangerous energy, which had to be kept subdued

by means of brakes and other costly and complicated contrivances, is absorbed and set to useful employment, like a burglar in a convict prison.

The idea bears the stamp of genius ; it is so simple and so complete. What baffled other men became in Mr. Maxim's hands the principal element of success.

That this was so is apparent from the following considerations. The "jamming," which was the most fatal defect of previous designs, often occurred, owing to the cartridge being damp and hanging fire, while the crank or lever was being rapidly worked. It was therefore, perhaps, partially withdrawn while in the very act of exploding, the forward end of the case was driven firmly into the chamber, and the mechanism thrown out of gear. Or, again, the crank, by which other natures of machine guns are worked, may well, in the heat and excitement of action, be moved so rapidly that the cartridges, which fall into position in the older systems by their own weight, cannot attain their allotted position in due time. They are therefore crushed whilst they are descending, and the gun becomes jammed, and for the time being is as much out of action as though it were a field gun "spiked."

This is, at any rate, one explanation why machine guns have so often become useless at the supreme moment when they are most needed to show their

prowess, and when, perhaps, the lives of their detachments, or even the defeat or victory of the force they are acting with, are at stake. It is these very serious risks and defects which the ingenuity of Mr. Maxim has especially succeeded in overcoming.

In the automatic gun which bears his name, the first cartridge is exploded by simply pressing a button, much in the same way as one rings an electric bell. The recoil engendered by the explosion opens the breech, throws out the empty case, and inserts a fresh round. This one, in its turn, causes the same movements to be automatically repeated, and so *ad infinitum*.

The supply is kept up and the gun is "fed" from a revolving belt, which can be quickly replaced, when emptied, by a full one.

There is only one barrel, and that, as we shall see, is encased in water.

It will be understood that as the explosion of each cartridge is entirely dependent on the recoil caused by that of its predecessor, a "jam," owing to a cartridge hanging, or missing fire in the manner first described, is altogether impossible. All that would happen, did such a thing occur, would be that the gun would cease firing, and the mechanism would be as little injured or out of gear as is a fowling-piece when

a similar *contretemps* overtakes us out shooting. A few seconds might suffice for a man to remove the cause of mischief, and the bullets would very soon again be flying on their errands. A miss-fire may be an awkward mishap, of course, at a critical moment, whether in action, or when shooting big game, but the consequences of one are not, it is obvious, nearly so serious in the case of Maxims as in that of other machine guns.

The automatic arrangement is also advantageous, because no external force need be brought to bear to fire the gun. A fruitful cause of inaccuracy, even in rifle-shooting, is quite obviated therefore, and once correctly laid and it is claimed that set in motion on a perfectly rigid platform a Maxim gun would go on firing, and putting bullet after bullet on the same spot without any interference or relaying being required.

Since, however, we do not find perfectly rigid platforms supplied to us on battle-fields, we need not over-estimate this point in the automatic gun's favour.

That so rapid a rate of firing as it can develop will quickly heat the barrel everyone with any knowledge of firearms at all will understand. To counteract this difficulty, it is surrounded by a jacket full of water in such a way that the water has not only to be heated

but evaporated. But then, as Jameson's men are said to have found the other day, to their hurt, water is not always obtainable, and the utility of the Maxim gun depends on an adequate supply.

This weapon has, however, great merits to recommend it, and it is the one which has been selected to form part of our recognised organisations. As I do not propose to compare rival systems with it, or to discuss purely technical matters as to the best dimensions of the calibre for such weapons, I will, in speaking of machine guns, take it as a type of all the others.

I may, however, add that with regard to the predictions that have been made as to what the larger natures which some experts have promised us for land service may accomplish, it is to be remarked that the resources of science are not open to one arm only, and that it is not improbable that the future may see artillery also turning to its account those advantages with which in the long run perseverance never fails to reward attention and skill. Whatever coming years may have in store for us, however, be it quick-firing guns or high explosive shells fired from howitzers, it is more profitable now to deal with matters as they are, and to consider how far artillery must to-day modify its tactics, so as

best to make use of or neutralise the most recent acquisitions our armed strength has received.

The extent of the influence of these innovations is not at present easy to determine, for all we have to go upon are some more or less unreliable reports from the practice ground, and a few isolated instances from active service ; while in the case of machine guns we have to discount the confident assertions of enthusiasts or inventors. Controversy as regards mounted infantry has not run quite so high, but experts differ considerably as to their value.

It is to be regretted that in the case of machine guns language has frequently become rhetorical and inflated.

We used to be told that the mechanic has superseded the soldier, that their introduction will effect such a revolution in warfare as has not been witnessed since the appearance of the breechloading rifle, and that the nation that does not utilise them courts defeat. Yet the most practical soldiers on earth, and the nation which has ever been first to develop fire effect, from the days of Frederick's iron ramrods to those of the needle gun, remain sceptical.

The expressions I have referred to ominously reproduce the acclamations that heralded the advent of the mitrailleuse. A foreign enthusiast has even declared that "*La mitrailleuse constitue un tireur*

idéal, puis qu'elle n'a point de nerfs, et ne connaît pas la fatigue." *

But some admirers have not contented themselves with claiming for the new inventions great efficiency in certain situations, and suggesting them as a possible substitute for Horse Artillery guns, but the whole status of Field Artillery in general has been threatened by them.

It has been more than once contended that artillery will not be able to live even at ranges of from 2000 to 3000 yards under the "stream of lead" which the new arm is to pour upon it.† The exploits of the small-bore rifle likewise aroused similar expectations, which, however, will all demand an almost perfect system of range-finding ere they can be realised. Artillery, with the advantage of seeing the results of its shots, has had considerable experience of the difficulties of picking up the range even at the shorter distance specified

* "L'Emploi des Mitrailleurs et Canons à tir rapide." By Gustaf Roos.

† In opposition to these views it has, however, been argued that the improvements in small arms, such as the magazine rifle, and the introduction of a smokeless powder, will *increase* the relative importance of Artillery fire. It is contended that modern infantry fire will be so destructive that the attack will be altogether unable to make headway unless supported by a powerful Artillery, and will call more loudly than ever for the guns to shake and demoralise its opponents when it finds itself checked.

above, and will know how to discount over-confidence here, but there does seem a danger that the idea may gain ground that future battles will see long intervals separating the opposing lines, and that the development of fire may again bring about the tendency to hold the guns back which has before characterised advances in this respect. There is more to be feared from such notions than from the bullets of the enemy, but as regards the earlier stages of the fight, they are invested with a certain truth. So much may be admitted ; nevertheless, to gain *decisive* effect, to give the knock-down blow that establishes victory, the two parties in the struggle must ultimately come into collision, and moreover the losses that may be anticipated from long range fire will make them seek to do so as quickly as they may.

The Russian General Kouropatkine has said that the fire from an intrenched position did not increase in intensity as the attack advanced. On the contrary, its effect seemed greater at 2000 than at 600 mètres, because, as the assailants approached, the defenders lost their heads, the more cowardly ceased to fire altogether, and the great majority let off their rifles in the air. The Germans, with a unique experience of modern war, have little confidence in long ranges, and "long range fire on artillery is discountenanced as a

rule." The new Drill Regulations for artillery, of our own and foreign armies, drawn up with a full knowledge of the powers of the best machine guns, are full of rules that seem almost to ignore them. We find that artillery should not, at decisive moments, avoid even the very heaviest fire from either rifles or machine guns, and certainly it is advisable in order to assist the infantry attack, to cause its advance when the fire of the guns is masked, to be accompanied by single batteries if possible up to the very closest and most effective range. The strengthening, especially in moral, which the attack will experience from such an accompaniment will fully outweigh the consequent losses of the artillery.

I am convinced that it is unnecessary to rush so intrinsically valuable a weapon as the machine gun into popularity after the fashion I have referred to. It has attained a recognised status, and is able to stand on its own merits in its own sphere.

Lest, being an artilleryman myself, it may be imagined that the artillery service is specially prejudiced against machine guns, I would further point out that the advocates of the rifle, on the other hand, claim that their especial weapon, with its modern developments, will in the long run prove the more valuable arm.

Major Mecham, District Inspector of Musketry, for example, stated before the Aldershot Military Society* that he thought the money spent on machine guns would be more usefully expended in giving an increased supply of ammunition to the men, while on the same occasion Major Hutton gave some striking instances from his experiences on service at Alexandria in 1882, and from the results of practice, to show how easily a vast waste of ammunition may take place when using these weapons without the error being discovered. I must, however, point out that Maxim guns were not those on this occasion referred to, and that their performances might have been more satisfactory.

Before 1870 the most extravagant hopes with regard to the value of the mitrailleuse were indulged in, and equally high-coloured pictures of the effects to be produced by the Gatling gun were drawn by its admirers before it was adopted and tested on the battle-field. In neither case was expectation borne out by the event, while even at the present day the machine gun has not made any decided impression on tactics.

* Proceedings of Aldershot Military Society, July, 1888. The cause of the bad shooting was due, it is said, to the wheels not being on the same level. This may be so, and can doubtless be obviated, but it is essential to notice that those with the guns, even at 1120 yards range, were quite satisfied with their performance, and had no idea of how wide of the mark their shots were going.

The French, of course, did not understand the true application of their favourite, and committed the initial blunder of substituting a battery armed with it for one of the batteries of their divisional artillery, but the fact must not be overlooked that the Germans had so poor an opinion of its powers that they never utilised any of the numbers (about 600) they captured against their opponents. In no case, however, can it be admitted that the issue of battle is simply a question of weapons. As I write these lines the papers are full of the disaster which has just overtaken the gallant Italians in Abyssinia, who have learnt to their cost that the most modern equipment will not secure victory to an army which is not handled in action with skill and judgment. The result of a fight still depends, as it always has and will, on the number, discipline, and bravery of the combatants, and on the capacity of their leaders, and victory will never be snatched by the possession of a mechanical contrivance, however perfect it may be shown to be theoretically.

Moreover, even if the powers of the machine gun are as great as their advocates assert, artillery fire can be shown to be quite as destructive, at any rate, on the practice-ground, which is at present the only arena wherein they can measure their strength.

What modern guns may do on the battle-field itself,

however, is evidenced in the Turkish losses at Aladja Dag, when, according to Lieut. Greene, "the greater part of their losses were caused by the admirable employment of the Russian artillery with shrapnel." *

The late Major-General C. B. Brackenbury has likewise quoted this battle to show how hard good artillery can hit, and has stated that on that occasion 50 per cent. of the Turkish losses were caused by artillery fire. †

The machine gun cannot therefore lay claim to a monopoly of deadliness, nor can it, it is believed, owing to its want of power, ever prove a substitute for artillery except under exceptional circumstances.

Those books on tactics which have appeared both in this country and abroad, since it has forced itself prominently on public attention, agree in regarding its fire as a species of musketry, and its tactics are rightly therefore to be considered in combination with those of mounted infantry. The one is a mounted rifle, the other a mounted rifleman. It is for this reason, doubtless, that some authorities consider that cavalry alone should accompany Horse Artillery, but it would appear that the mobility of mounted infantry and

* Greene's "Russo-Turkish War."

† Lecture before the Aldershot Military Society, on "The Use and Abuse of Field Artillery."

machine guns may render them an efficient escort, capable of going almost anywhere that artillery could penetrate.

We have the high authority of the late Sir Edward Hamley for recommending the former for this duty, and, if it is to be made use of, its effect should naturally be supplemented and enhanced by the addition of a few of the latter.

Again, however, it is right that I should tell my readers that the late General Keith Fraser, Inspector-General of our Cavalry, did not consider that machine guns should accompany Horse Artillery. In his report on the cavalry manœuvres of last year he says :—

“Machine guns.—There were only two Maxim guns with the division, and these being both in charge of the same regiment, were not considered available during the operations of brigade *versus* brigade. I recommend that each cavalry regiment should be supplied with a Maxim gun, to be carried in a bucket on the off side behind the rider’s leg, the tripod being similarly carried on the near side. I consider that machine guns are quite out of place if attached to and working with Horse Artillery.”

There was no mounted infantry present at these manœuvres, so that there was no opportunity of learning

anything as to their employment with the cavalry division.

The drift of the previous remarks may appear to show an inclination to unduly depreciate the value of machine guns. Such is not their intention. Viewed as an addition to the fire action of cavalry in certain situations they have a high value, and a unique claim to consideration for a certain class of foe. They will also doubtless inflict heavy losses on artillery, but none the less must artillery be taught to brave such risks, and, however hazardous the attempt, it must still endeavour to approach to the most decisive ranges.

On the other hand, machine guns will often aid artillery in their *rôle*, but will not replace them.

I feel tempted here for a moment to stray away from the subject immediately in view, and to speak of artillery in general, and not of the guns only, that will accompany our squadrons, because it is conceivable that machine guns may on the most modern battle-field, and in the very hottest part of it too, be of special service.

It is during the last stages of the attack that the importance of a close co-operation and support between artillery and infantry has always been recognised. The necessity for the artillery to perform these functions was plainly evidenced by Napoleon's attaching

two guns to each regiment, or to three battalions of infantry,* and this at the very time and occasion when he developed the power of artillery in masses to an extent that never previously had been attempted. Further on it will be shown how this idea may be carried out at present by substituting machine guns for the field-pieces Napoleon provided. Machine guns will here be able to save artillery from the destructive losses it would incur if pressing forward directly with the later stages of the attack, and, being better protected (by shields), will perhaps suffer less. It must, however, be remembered that in the face of shrapnel fire a shield may prove but a shell trap, and explode a projectile which might otherwise bury itself comparatively harmlessly in the ground. Colonel Home anticipated such tactics, and says that the Germans in their more recent books acknowledged the power of the mitrailleuse, more especially in the last portion of the attack, when its effect on infantry is very great. With regard to the plan adopted by Napoleon, and referred to above,† he asks: "May not this be the true place of the mitrailleuse, to support infantry when closely pressed, to be kept back until the advance of the hostile infantry to a certain extent masks its artillery, and then to be used on the ad-

* Home's "Modern Tactics."

† *Ibid.*

vancing infantry?" Similar tactics may be employed in the attack, it being remembered that modern machine guns are protected from infantry by steel shields, and that one man can serve them therefore under cover. Their great mobility would likewise allow them to be moved forward, even when severe losses had been sustained, whatever be the means of transport which may be ultimately adopted for them.

To revert again to their use with cavalry. To every brigade of cavalry in the field there will in future be attached a cavalry section with two machine guns. What has already been said as to the capacity of these guns has rather referred to an idea which some hold, although I do not believe that it is prevalent amongst officers who have at all studied the subject, that Horse Artillery might be superseded by batteries composed of these lightly-moving weapons. There will be many occasions in warfare in which a rapid concentration of fire, such as they may be depended on to supply, will be almost invaluable. To defend a defile, a village street, to guard or force a bridge, protect a ford, or defend an advanced post, are directions in which it is obvious that their assistance will be eagerly sought, and probably no one will deny their efficiency in such situations. It is possible that in the hands of a skilful officer, and

availing themselves to the fullest extent of their powers of rapid movement, and the smallness of their size, they may elude observation on the very battlefield itself, and do useful work even when acting quite independently. Their success in such a *rôle* would however depend entirely on the qualifications for such service which the officer in charge of them possessed. Three years ago we saw a machine gun well handled at the manœuvres in this very fashion, and no doubt with the right man in charge of it a Maxim will be able to make its influence felt on occasions during future warfare. The danger to be guarded against is that it should be turned into the plaything of a faddist, and be treated with the short-lived enthusiasm which surrounds the acquisition of a new toy. In judiciously selected hands and within its own sphere, however, it will doubtless assert its worth, and probably no men will more freely avail themselves of its services than will those of the artillery.

Of mounted infantry with cavalry it is more difficult to speak with any degree of confidence. Hardly any of our cavalry soldiers have given any public utterances which would enlighten us as to what they would do with the battalion which is attached on service to our cavalry division. Whether on active service that battalion could move with such a freedom as to be

always at hand when needed, is also a point on which I believe there exists considerable difference of opinion, which nothing short of ocular demonstration in war will completely allay. Presumably, however, our new arm will be able to keep up with our squadrons in their reconnaissance work far away to the front—to start on any other supposition would, it seems to me, be a mere begging of the question—and in reconnaissance work, when it is necessary either to gain information, or to prevent the foe's doing so, the assistance which a force of mobile riflemen may yield to their side will be immense. I have already touched upon the nature of the minor operations of an independent nature which will always give them an opportunity, and they may be useful with an advanced guard to hold a position until the infantry proper arrive, but even when two armies have become locked together in a decisive struggle on a large scale, it is very possible that we may also turn the newest adjuncts to our military resources to considerable account.

By almost all writers on artillery, and by many soldiers who have studied war on the battle-field, notably by such men as Prince Kraft and Von Dresky, great stress has been laid on the capability of artillery to defend itself from assault. Such remarks, however, apply more especially to a good artillery position and

a frontal attack. To meet an enveloping or flanking movement will sometimes severely try the powers of batteries, and, moreover, will divert their aim from the true objective. During movement, moreover, artillery is absolutely helpless, and must be intimately supported by the other arms, and, if this is the case in the ordinary combat, it becomes an even more pressing necessity when artillery is more or less isolated to the front or on the flanks.

To tell off a permanent escort of infantry appears a mistake, as it will not be able to follow the guns in their quick movements, and will probably be behind-hand at the very moment it is wanted. To attach a body of cavalry would be of little advantage, as the action of this arm is very restricted on the modern battle-field, and it would be itself unable to hold its ground in the presence of aimed infantry fire. If, therefore, we can find an arm capable of quick movement, and at the same time possessed of powerful fire action, we will have the very article most suitable for escort purposes. In mounted infantry and machine guns we have to hand the exact thing we are in need of, and in this respect a wide sphere of action is open to them. After their work with the advanced guard is over therefore, and while the army forms up into line of battle, a proportion of the machine guns and

mounted infantry should be told off to form an escort to the artillery throughout the day.

But guns will have to do more than stand stolidly firing at long ranges. Without a more genial support than this the infantry will never get forward, and, therefore, in order to heighten the effect of their fire, and bring matters to an issue as soon as possible, the guns must soon push forward to a more decisive range. Such an advance on their part might be covered by a heavy fire from the machine guns forming their escort, which should by this time, by utilising the experiences of the artillery, have accurately arrived at the range of the enemy's guns, and should be able to pour a very intense and rapid fire on them while their artillery are limbered up and advancing.

After one or more of these advances the artillery will have reached the decisive artillery position, which would be from 2000 to 1500 yards from the enemy's line, according to circumstances. Here the duty of the machine guns will be to protect them from any counter-attack that may be attempted by the enemy's reserves. They should now engage the guns of the defence, and thus permit their own artillery to devote their whole energy and attention to hammering and shaking the hostile infantry. As soon as the order is given for the infantry to advance to the assault, the

fire of all the guns (some may previously have been obliged to reply to the enemy's artillery), without change of position and regardless of any of the enemy's batteries still remaining in action, is at once directed on the points of the position to be assaulted, and upon any of the enemy's troops that can take the infantry in flank. "Artillery on the offensive should make it their principal object to play on the infantry of the enemy. An attack can only be thought of when this has been weakened." At this moment the machine guns may be of the greatest service to the batteries, and they may at this time very effectively fire on and annoy the artillery of the defence.

In the event of their infantry requiring further support and assistance the guns may have to seek even closer quarters, and, as has been shown, must not fear to advance to the most decisive ranges.

The introduction of machine guns may, however, render such movements unnecessary for the future.

As we have indicated previously, after the manner adopted by Napoleon in the case of field guns, these should be able to press forward with the infantry close up to the position. They are protected by shields, and should, therefore, be able to face modern musketry with more chance of success than guns could do, while their effect at ranges considerably under

1000 yards must be tremendous. They should now therefore be able to save artillery from the heavy losses, especially amongst the horses, they would have to undergo in pressing forward in the last stages of the attack. If circumstances demand it, it is true they will have to be prepared to face destruction. But with machine guns circumstances should not often demand the sacrifice.

If the attack be successful, the position of the attacking infantry is for the moment one of great danger, and it is all important to crown the captured position with artillery and ensure its possession.

A proportion of guns would be sent forward for this purpose, and here machine guns might accompany and protect them from a counter-attack with great advantage. If the enemy be in retreat, and is to be pursued, an efficient escort to the artillery would again be formed by a detachment of mounted infantry with machine guns, and its presence and close co-operation would enable the guns to advance fearlessly and with greater confidence to such ranges, as it would compel the columns of the retreating enemy to quit the roads and seek safety in a disorderly rout.

Such are some of the considerations that must guide us in making any modifications in the tactics of

artillery in attack due to the new auxiliaries that have lately been called into existence. But they are some only, and anyone who has had an opportunity of witnessing in the field during practical work the difficulties which are involved and which continually crop up in unexpected ways, will, I think, admit that, until the test of actual war has been applied to them, no deductions drawn from theory or even from peace manoeuvres can be really trustworthy, and must be accepted with considerable caution.

It is in savage warfare, however, that the best opportunity of machine guns has so far arrived, and at the comparatively short ranges at which actions are fought in such campaigns, they have undoubtedly earned a well-deserved reputation. It was during the Matabele war in the autumn of 1893 that they perhaps gained their brightest laurels.

The accounts which appeared in the newspapers from the various war correspondents who accompanied the expedition vie with one another in praising the courage and hardihood of our brave opponents, and the hopelessness of their attempts to face the fire of the machine guns which were turned upon them. Relying on their spears alone, they rushed on with a recklessness such as no European troops would have displayed, but only to certain destruction. The cor-

respondent of the *Daily News* wrote in one of his letters: "The Matabele presented a wide front, and they were struck down by scores as they got well within range. But they did not falter until they had reached the nearest waggons. Then the havoc wrought by every Maxim that could be brought to bear proved too much for their valour. They wavered and then fell back, but not in disorder. Before they could be followed the regiments had turned and delivered a second assault. One tried to find a weak point in the laager. All advanced gallantly, and all who were not mown down by the concentrated fire of the Maxims turned and fled before it. Yet a third attack was made; but the Matabele ardour had become cool. Spears had reached the laager in the first and in the second assault. In the third the enemy broke and fled at the first taste of the Maxims, impelled by a wild desire to find cover from the destroying hail." And so on the dreary tale of the enforced destruction of brave men fighting in their ignorance against a force of absolutely overwhelming power is continued with only trifling variation.

In the Chitral campaign also these guns asserted their influence on occasions unmistakably, and an acknowledgment of their good service appears in the despatches of Sir R. C. Low. No one will, in fact,

question their value in their proper sphere, and we need search no further for recognition of what they have done. At the same time it is as well that officers and the general public, which nowadays has its own notions on all subjects, should discriminate in their admiration, and not imagine that there is any talismanic attribute or virtue about a weapon, the characteristics of which must be carefully understood and opportunely applied, if the good results are to be obtained from it which it will undoubtedly yield when utilised with judgment and discretion.

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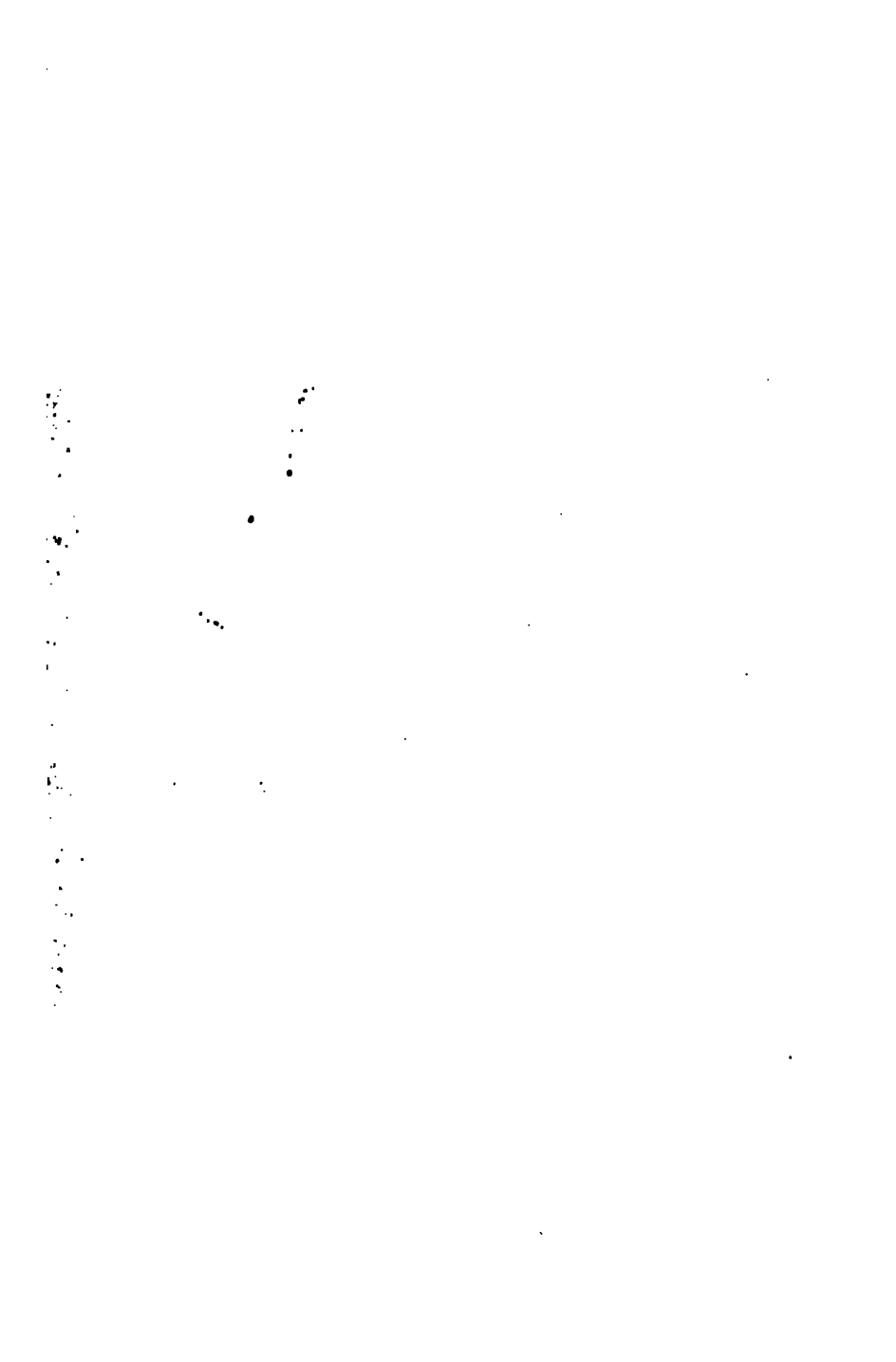
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